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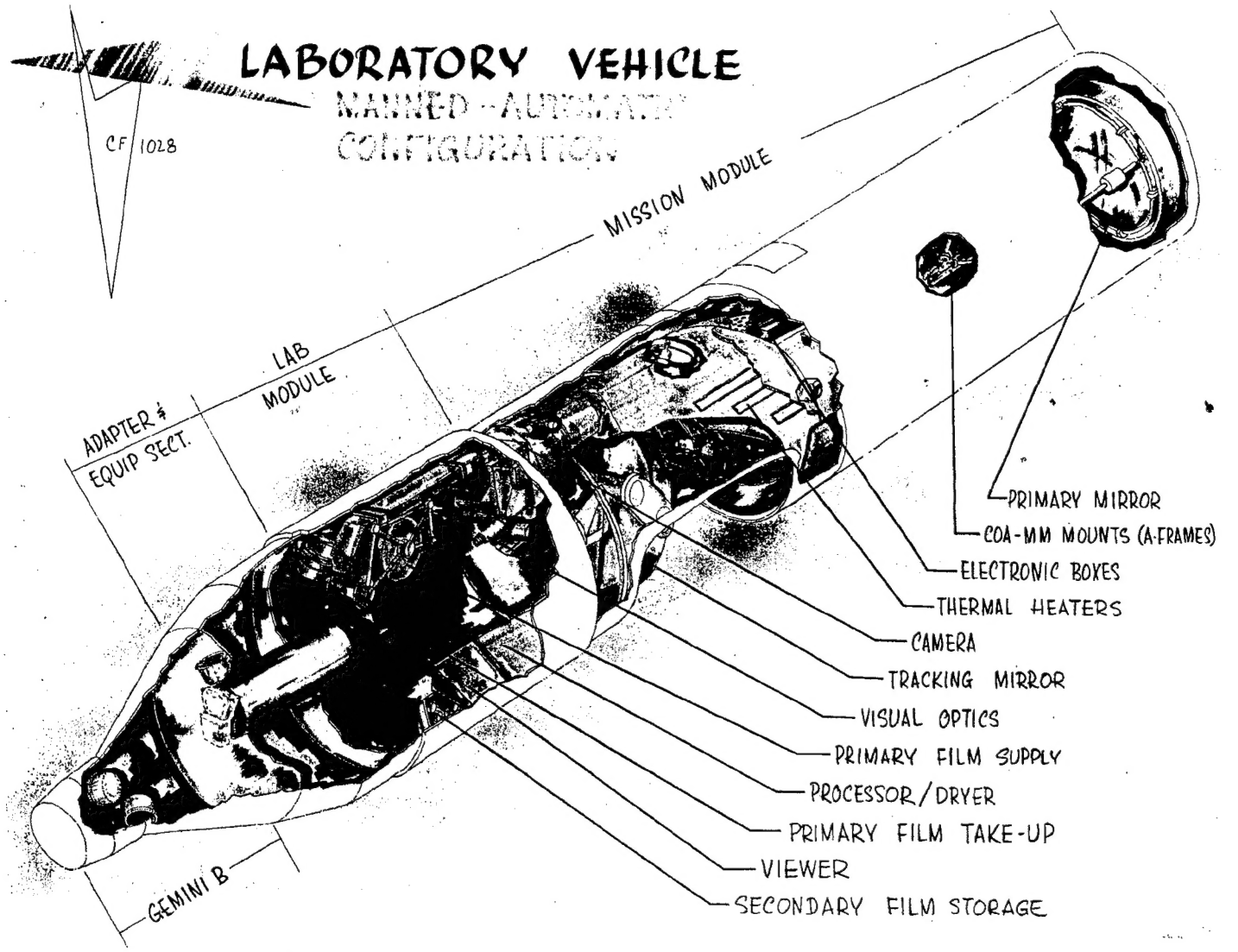

Figure 1.2-1. Orbiting Vehicle M/A Mode

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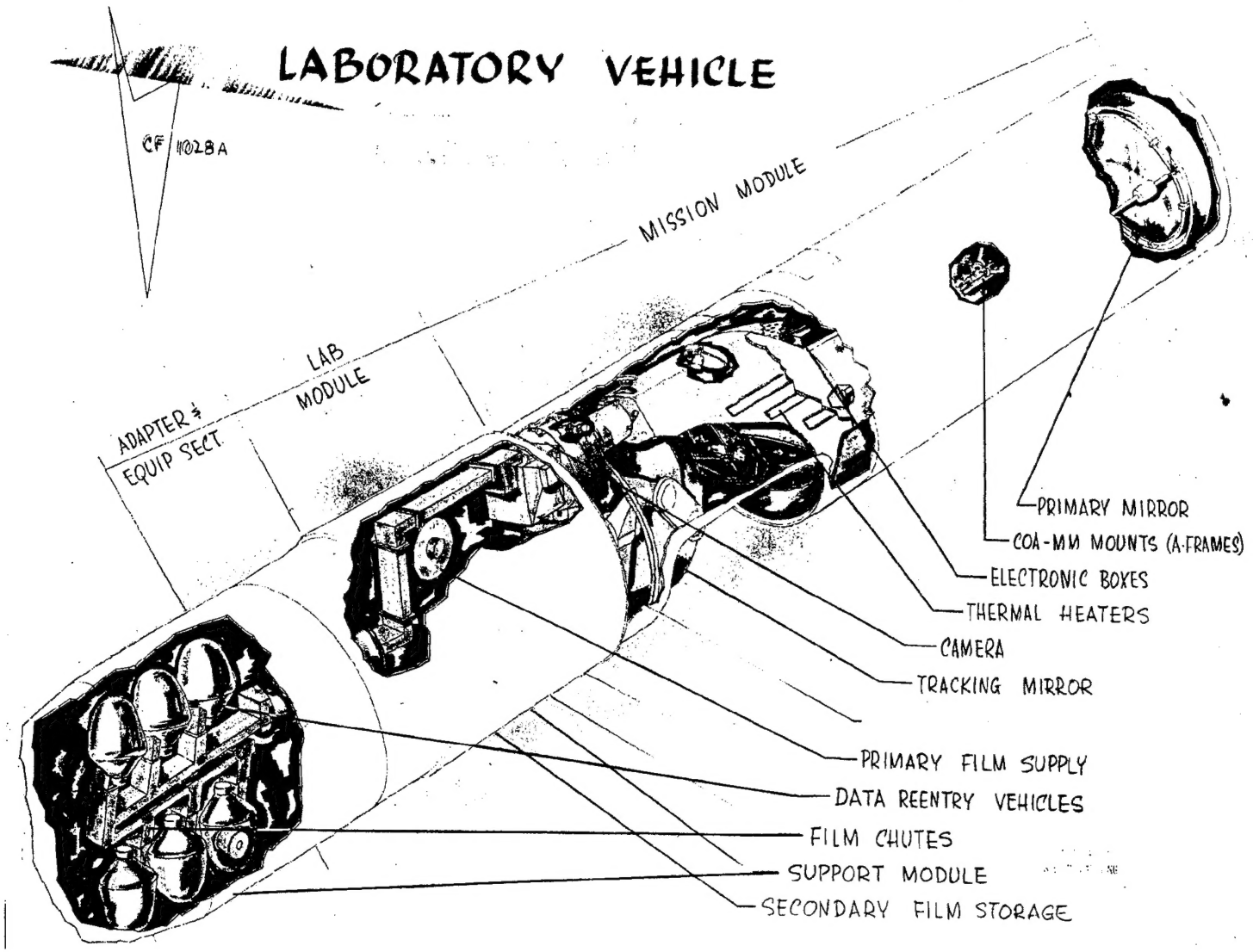

Figure 1.2-2. Orbiting Vehicle-Automatic Mode (Typical)

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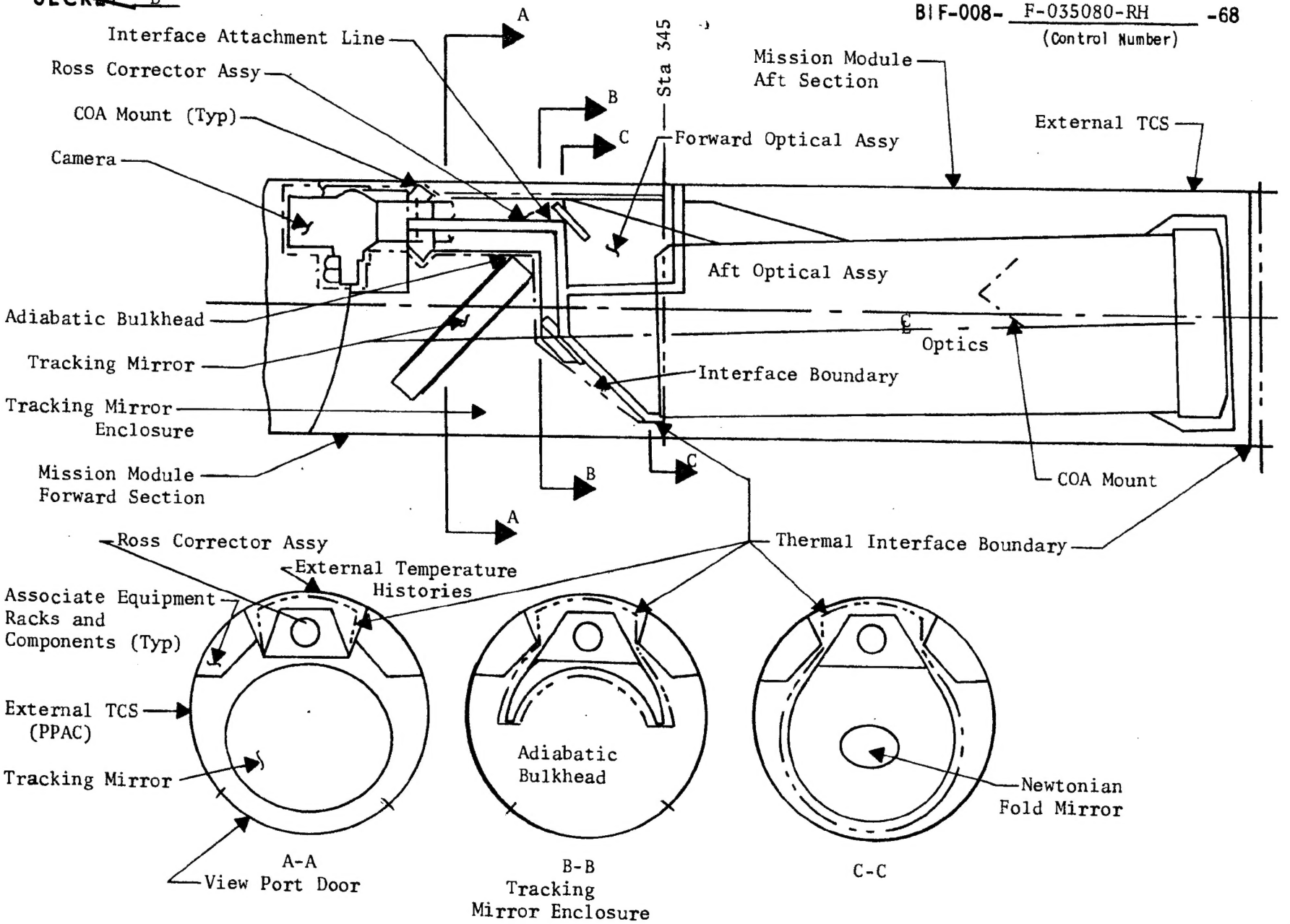

Figure 3.2-1. Mission Module Thermal Interface Boundaries

Handle via BYEMAN
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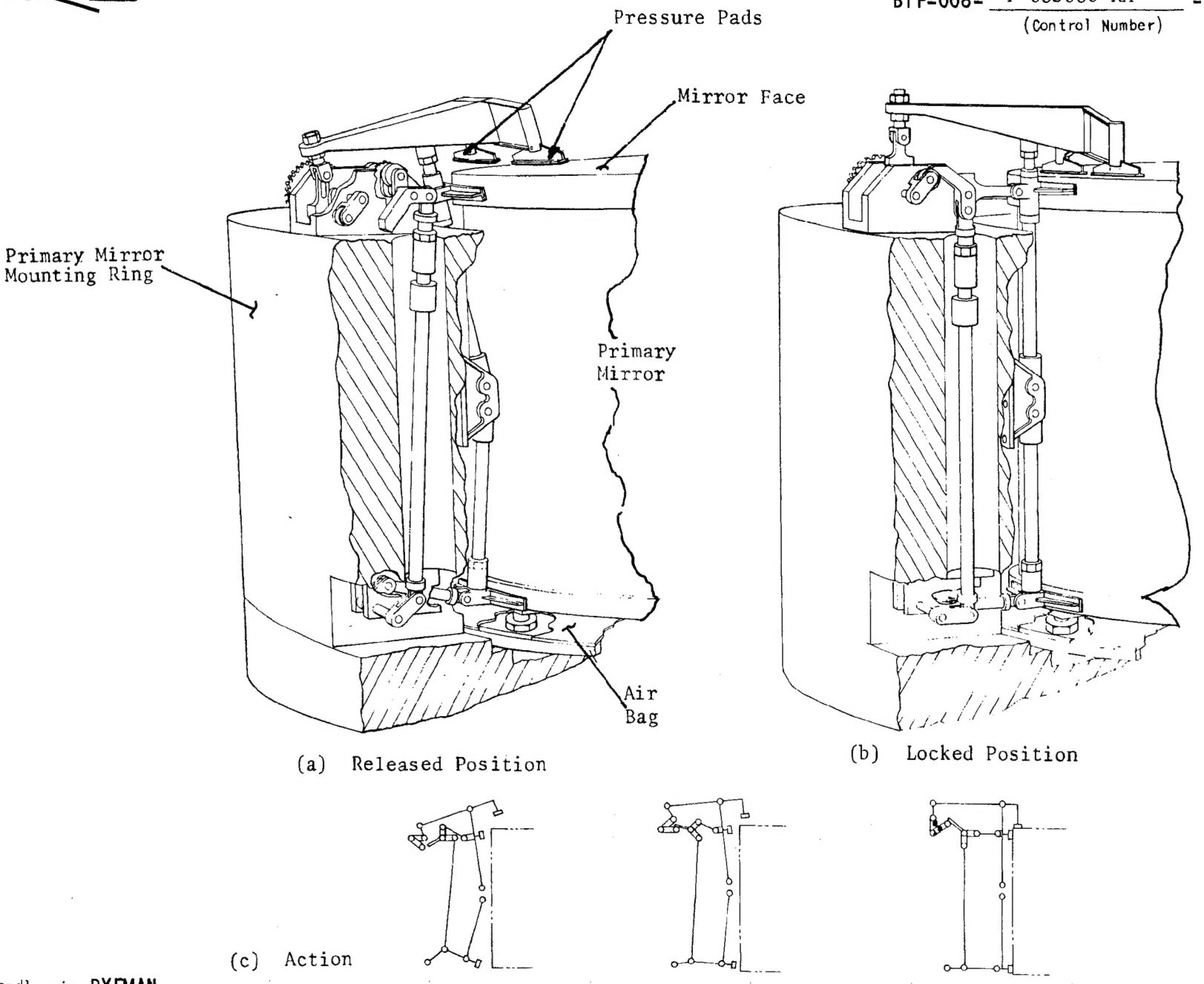

Figure 4.1-12. Primary Mirror Launch Lock

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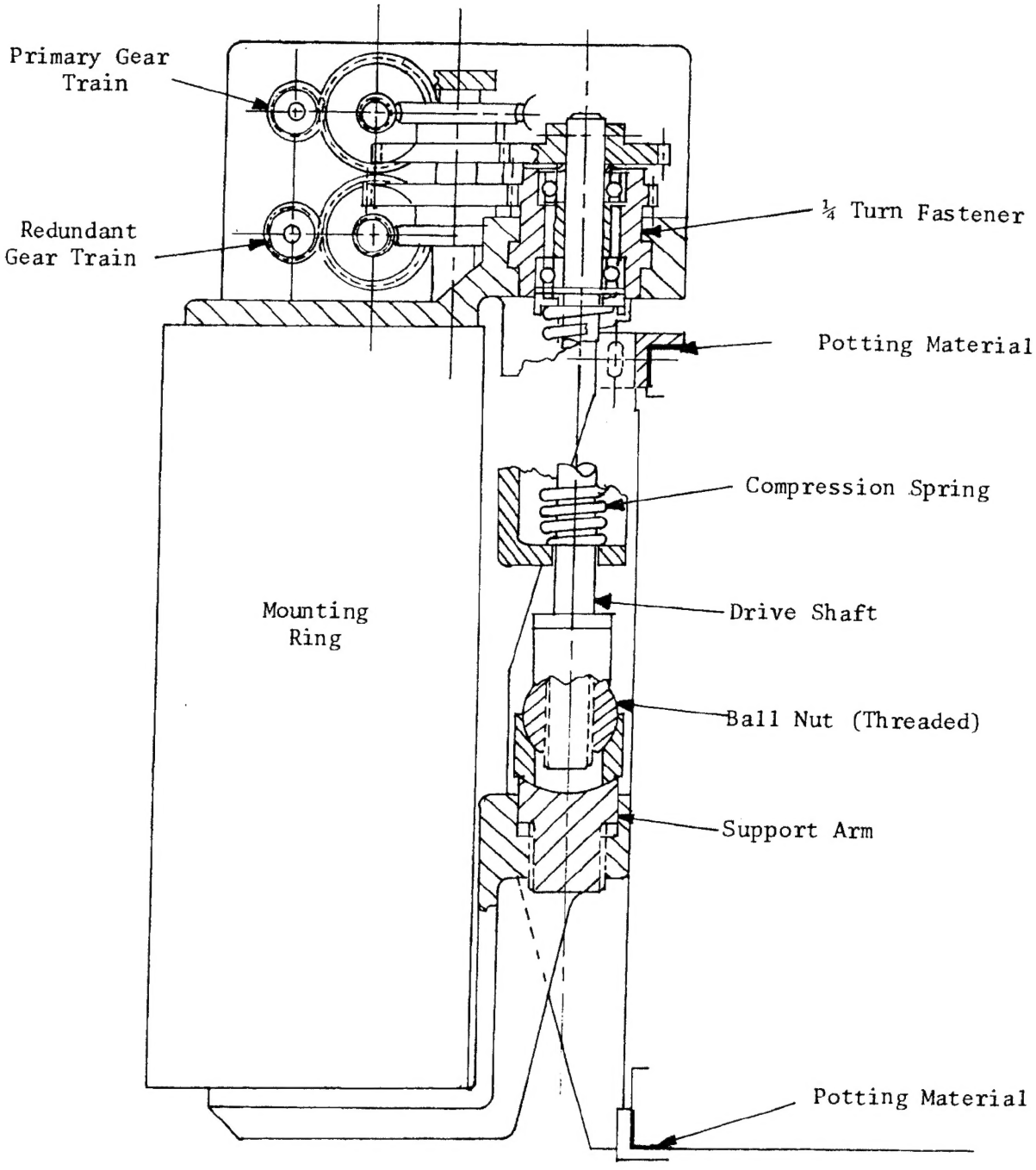

Figure 4.1-14. Lock-Set Design for Cer-Vit Mirrors

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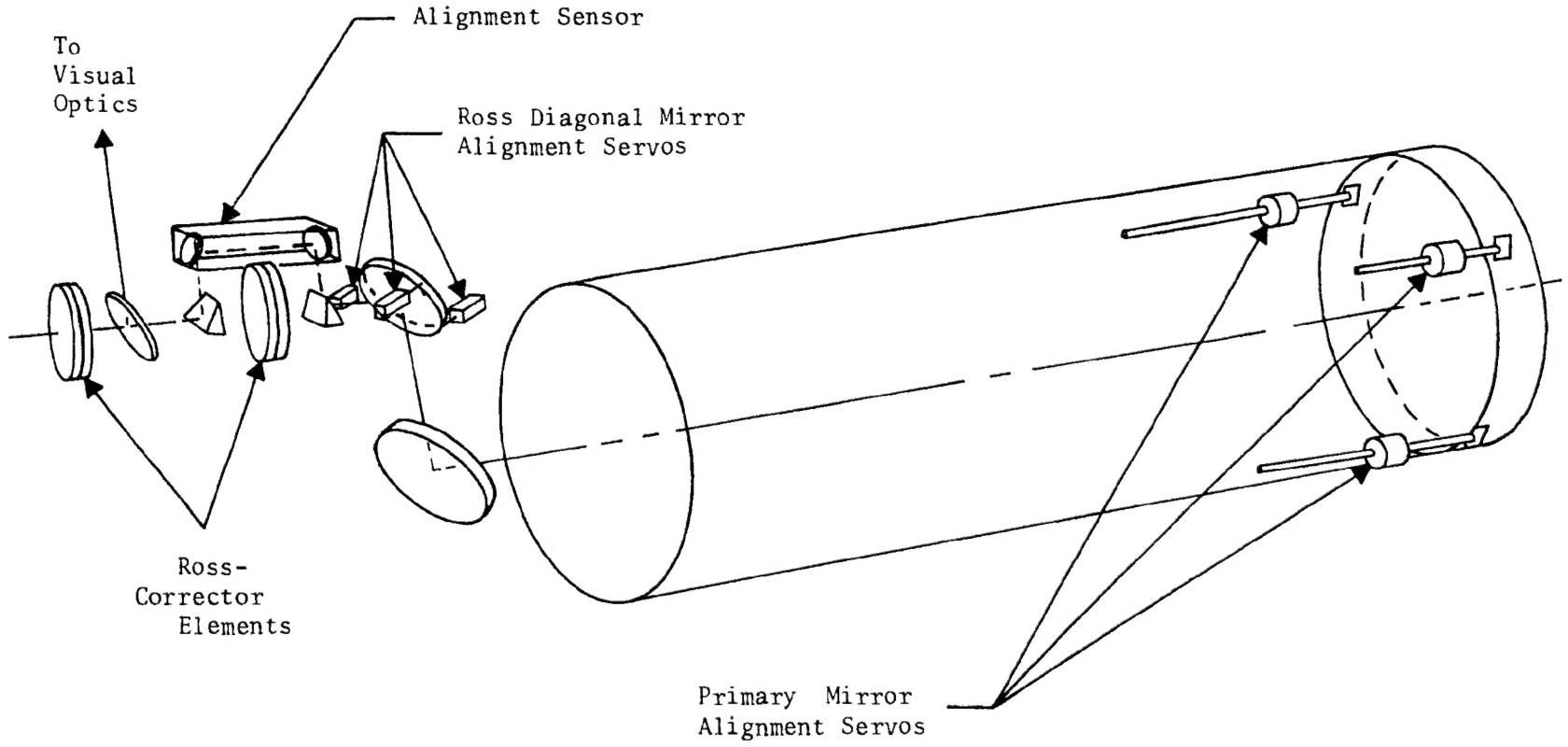

Figure 4.1-16. Alignment Sensor and Servo Drive

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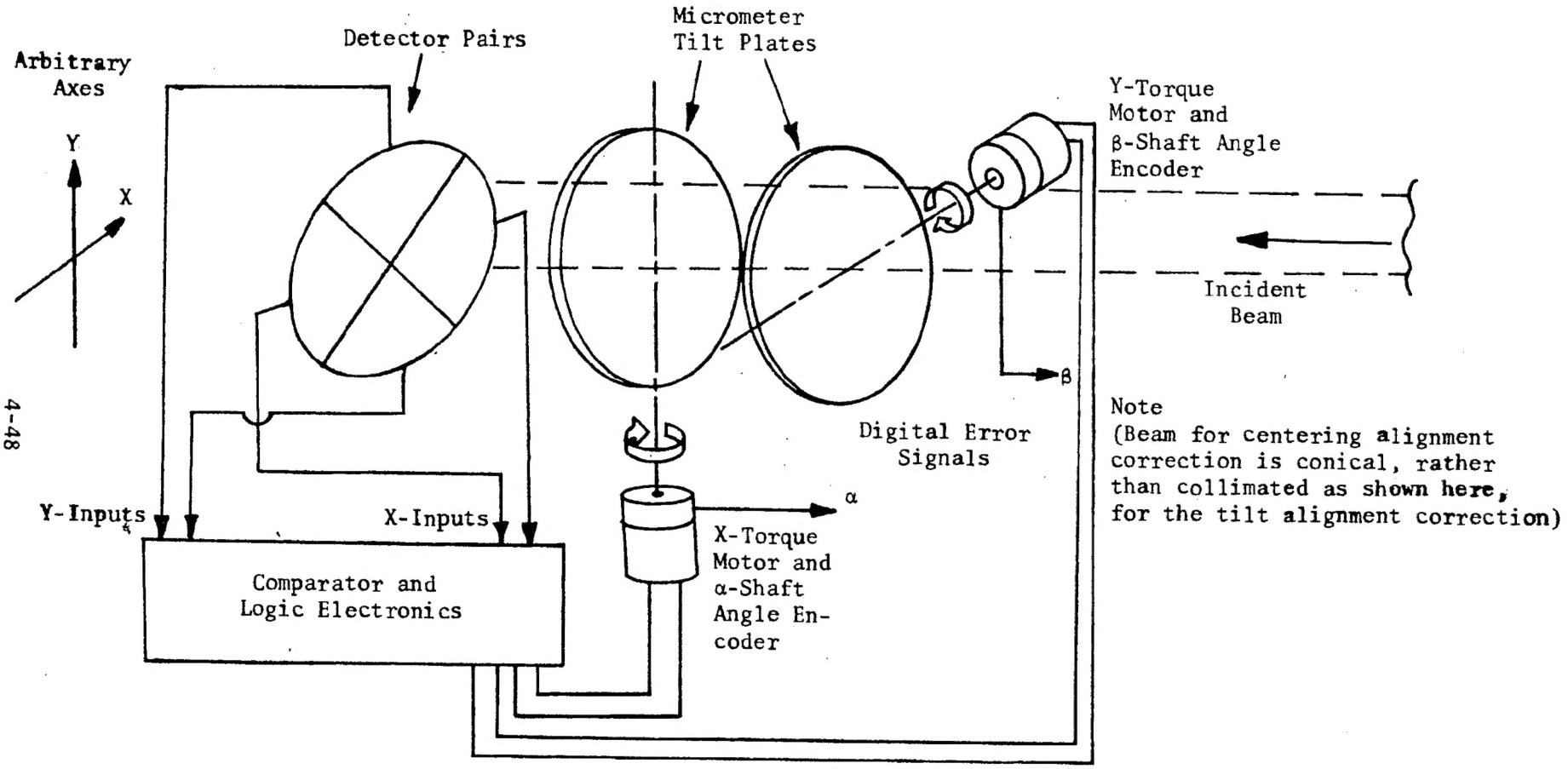

Figure 4.1-18. Schematic of Alignment Sensor Configuration

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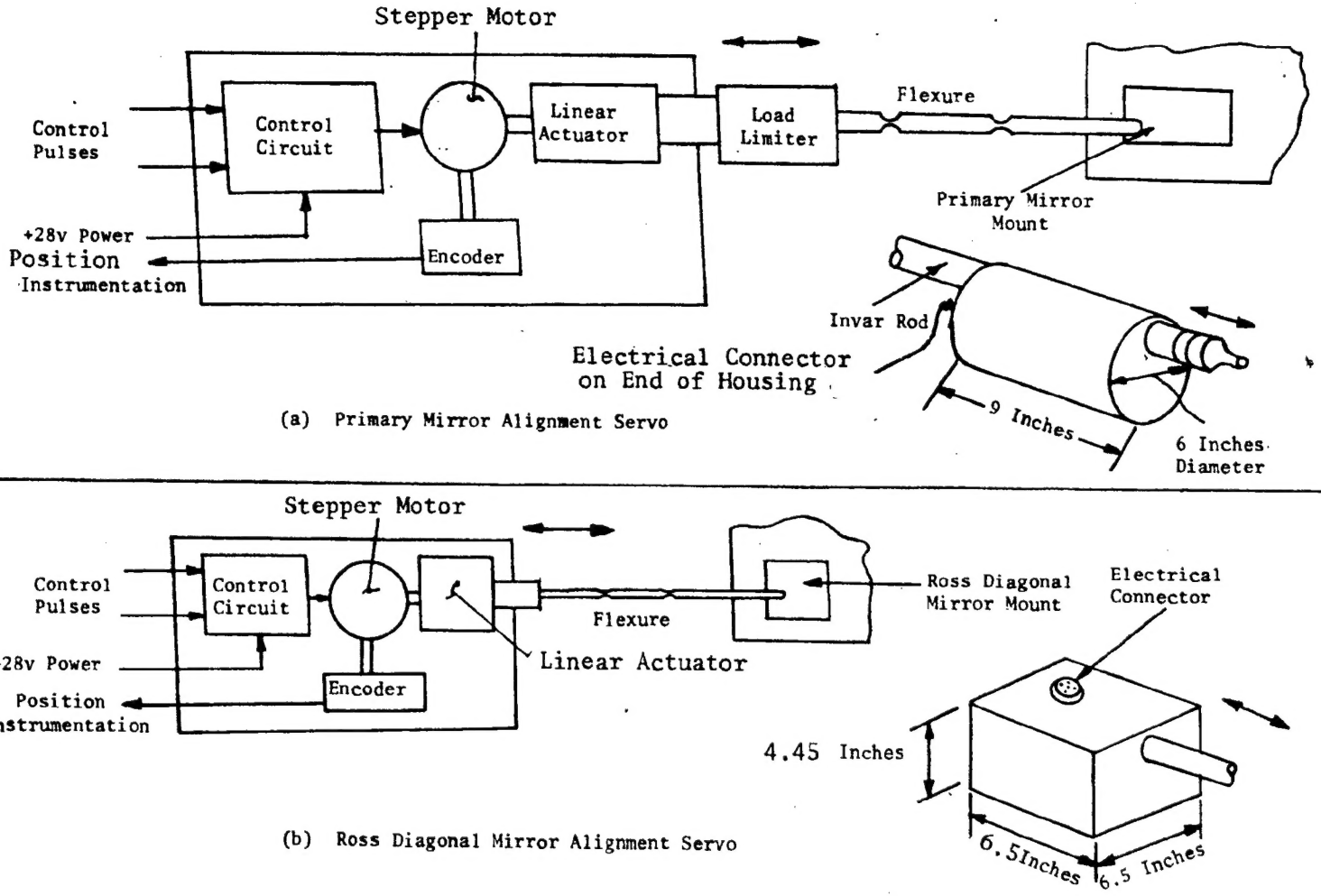

Figure 4.1-22. Alignment Servos

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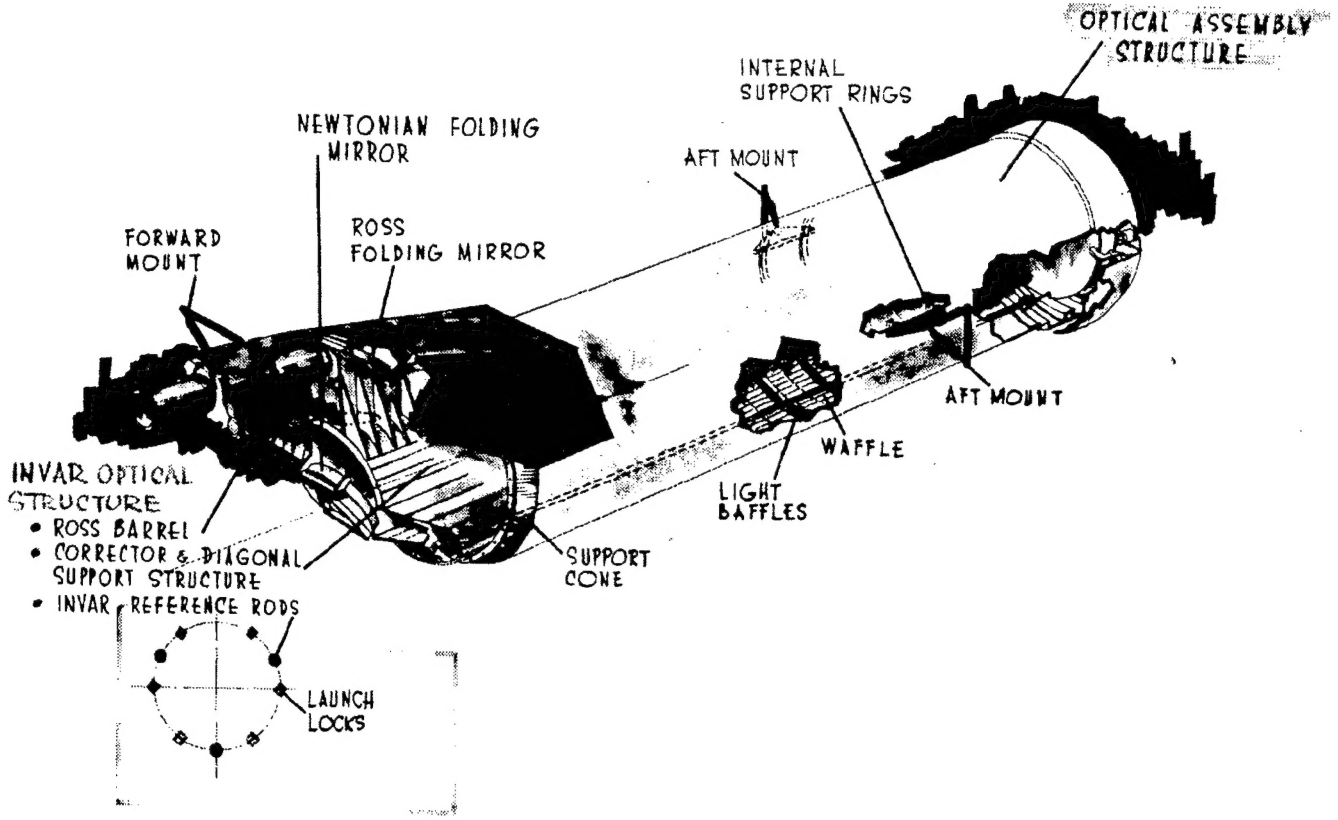

Figure 4.2-1. Optical Assembly Structure and Mounts

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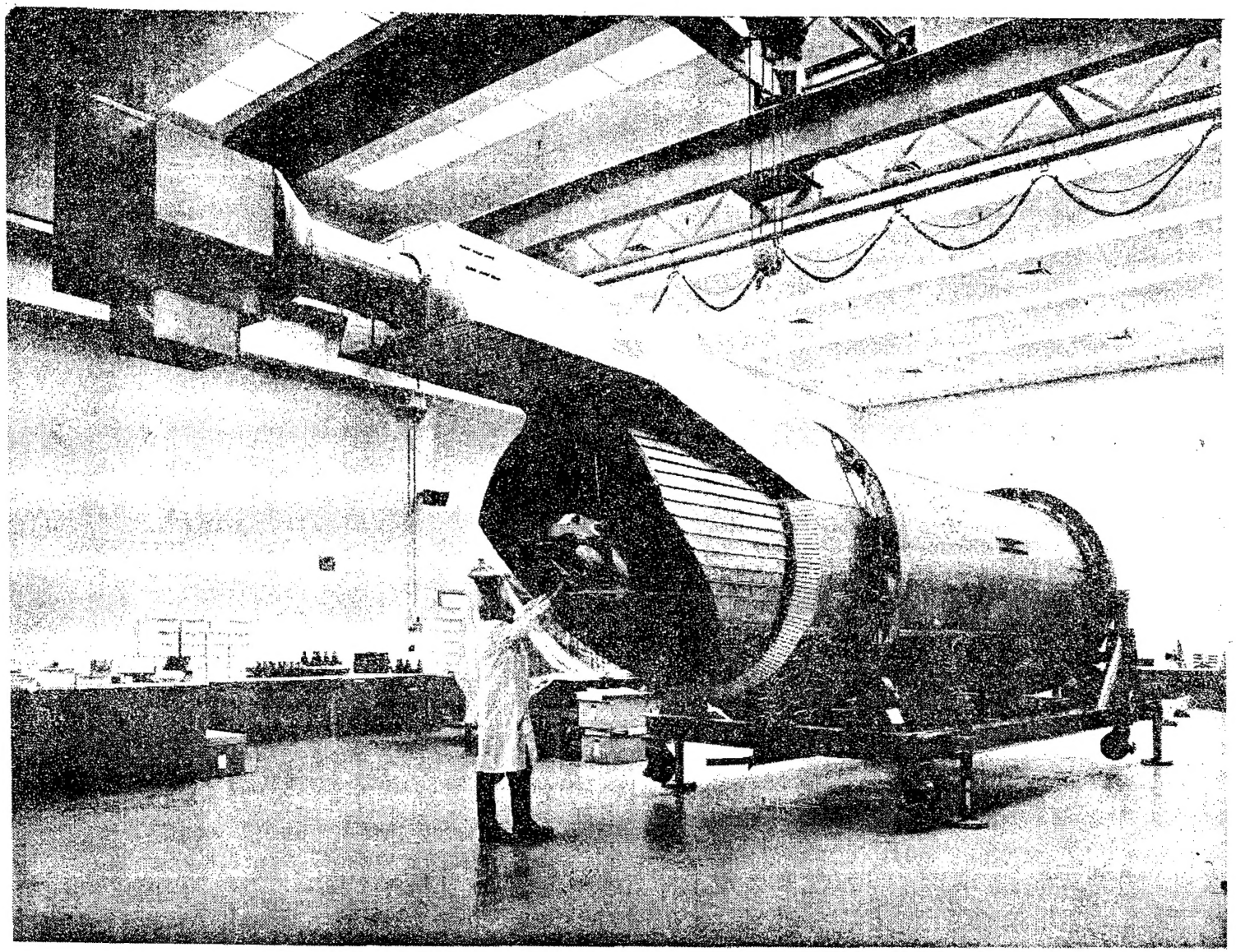

Figure 4.2-2. Structural Development Model COA

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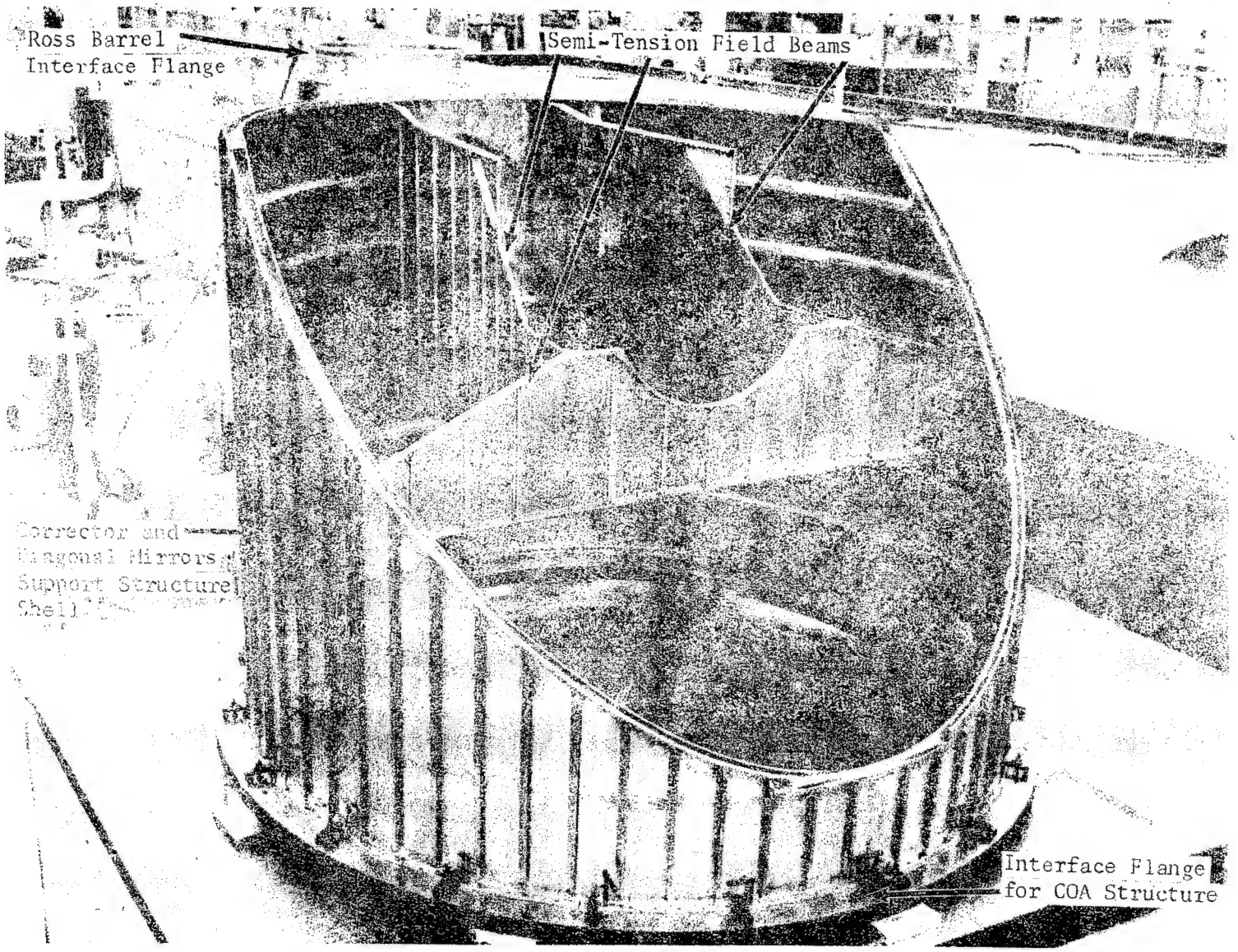

Figure 4.2-3. Corrector and Diagonal Mirrors Support Structure

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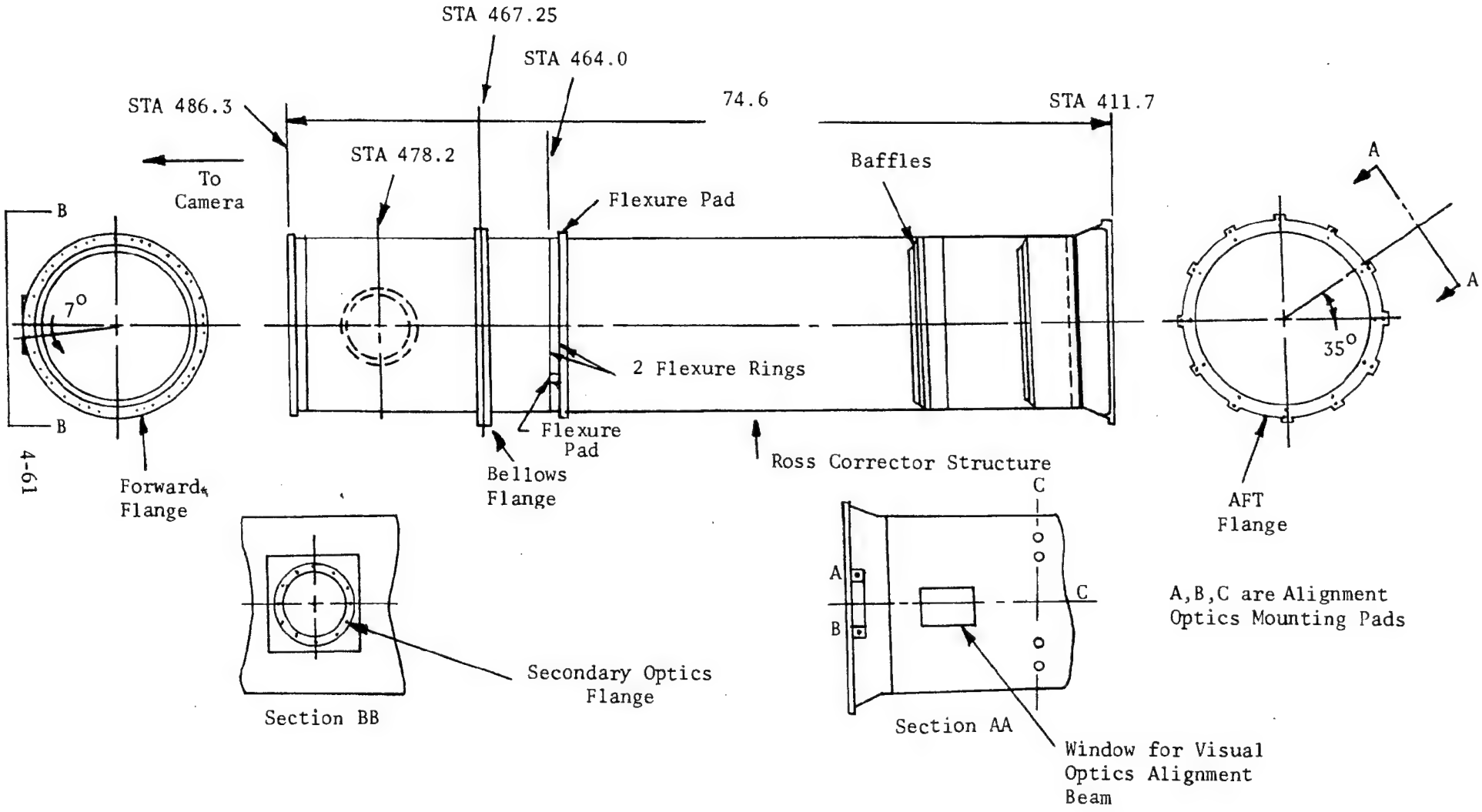

Figure 4.2-4. Ross Barrel Structure

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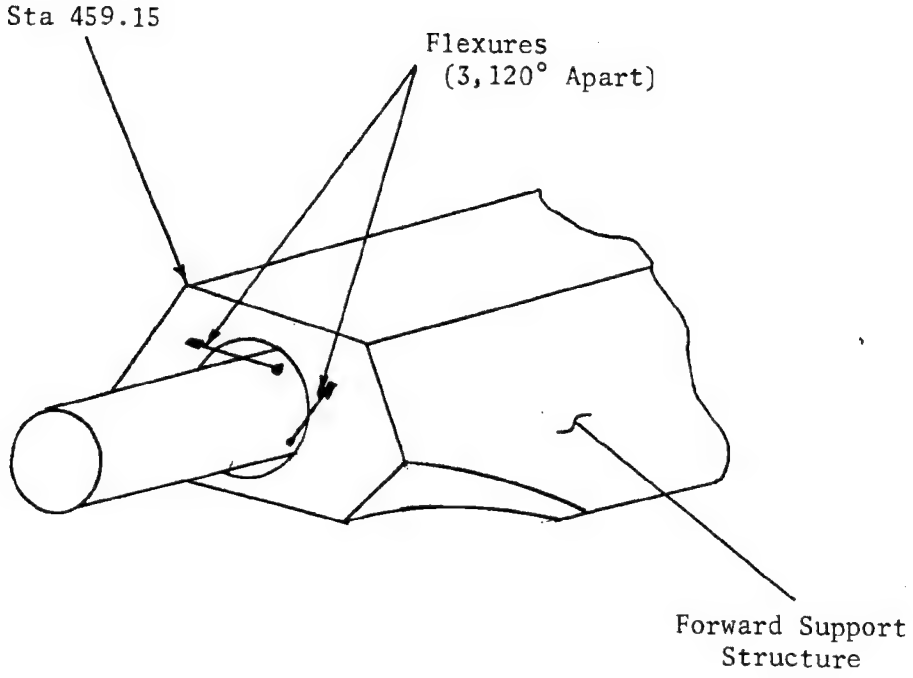

Figure 4.2-5. Forward Support Structure

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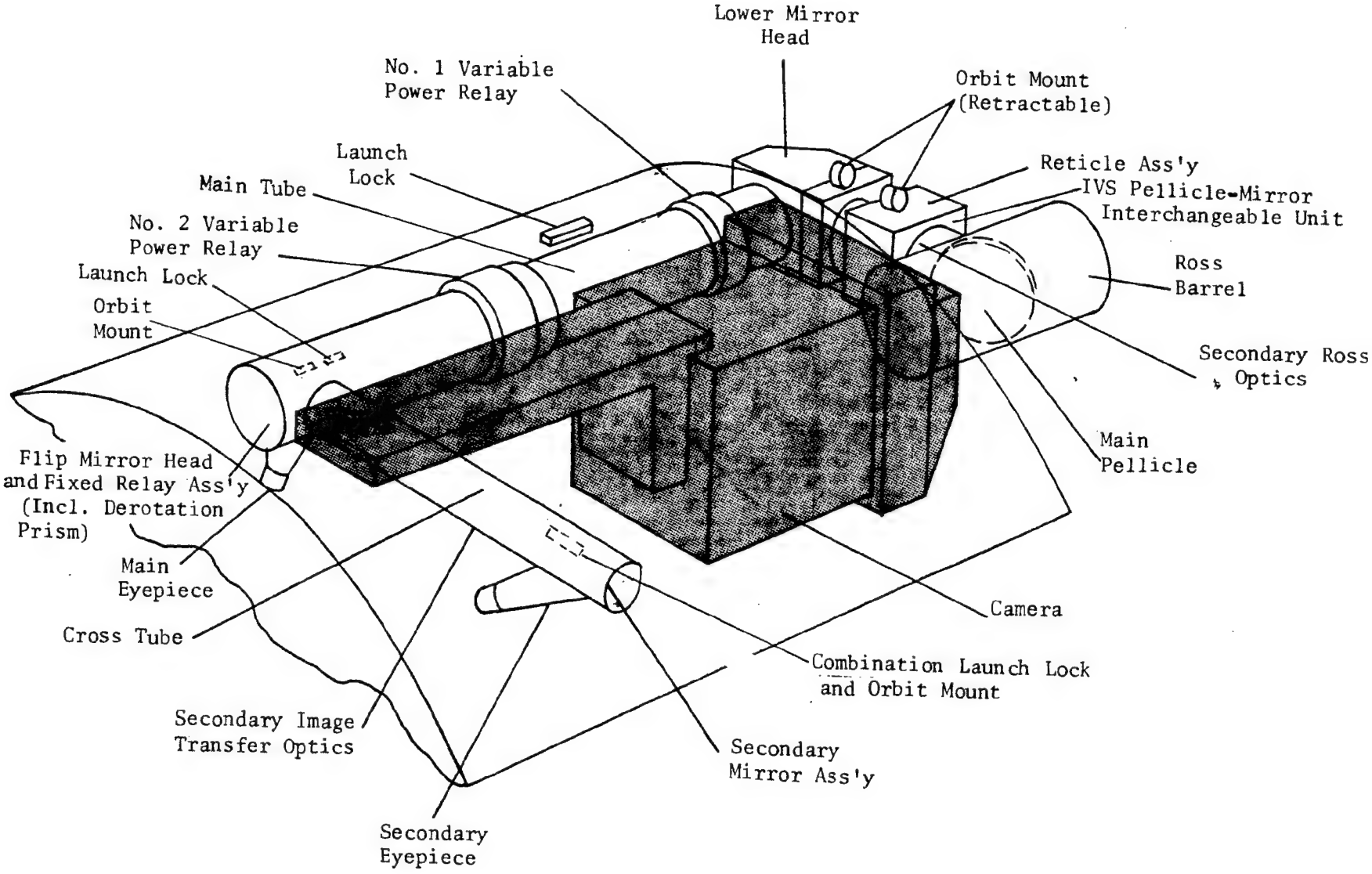

Figure 4.3-1. Schematic of Visual Optics Assembly

Handle via BYEMAN
Control System Only

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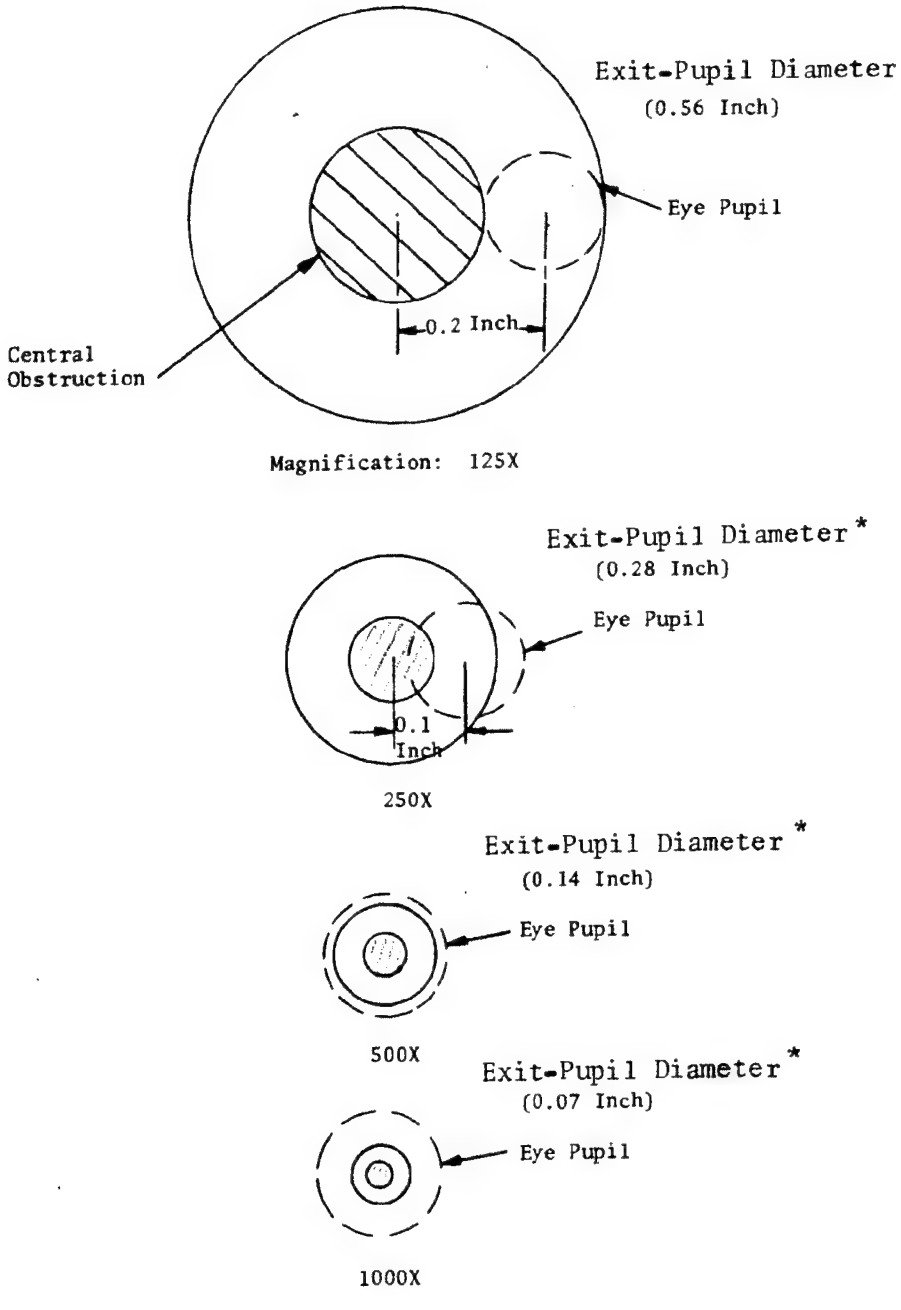

* Primary mirror only; tracking mirror dimensions not included

Figure 4.3-6. Exit Pupil/Eye Pupil Relationships

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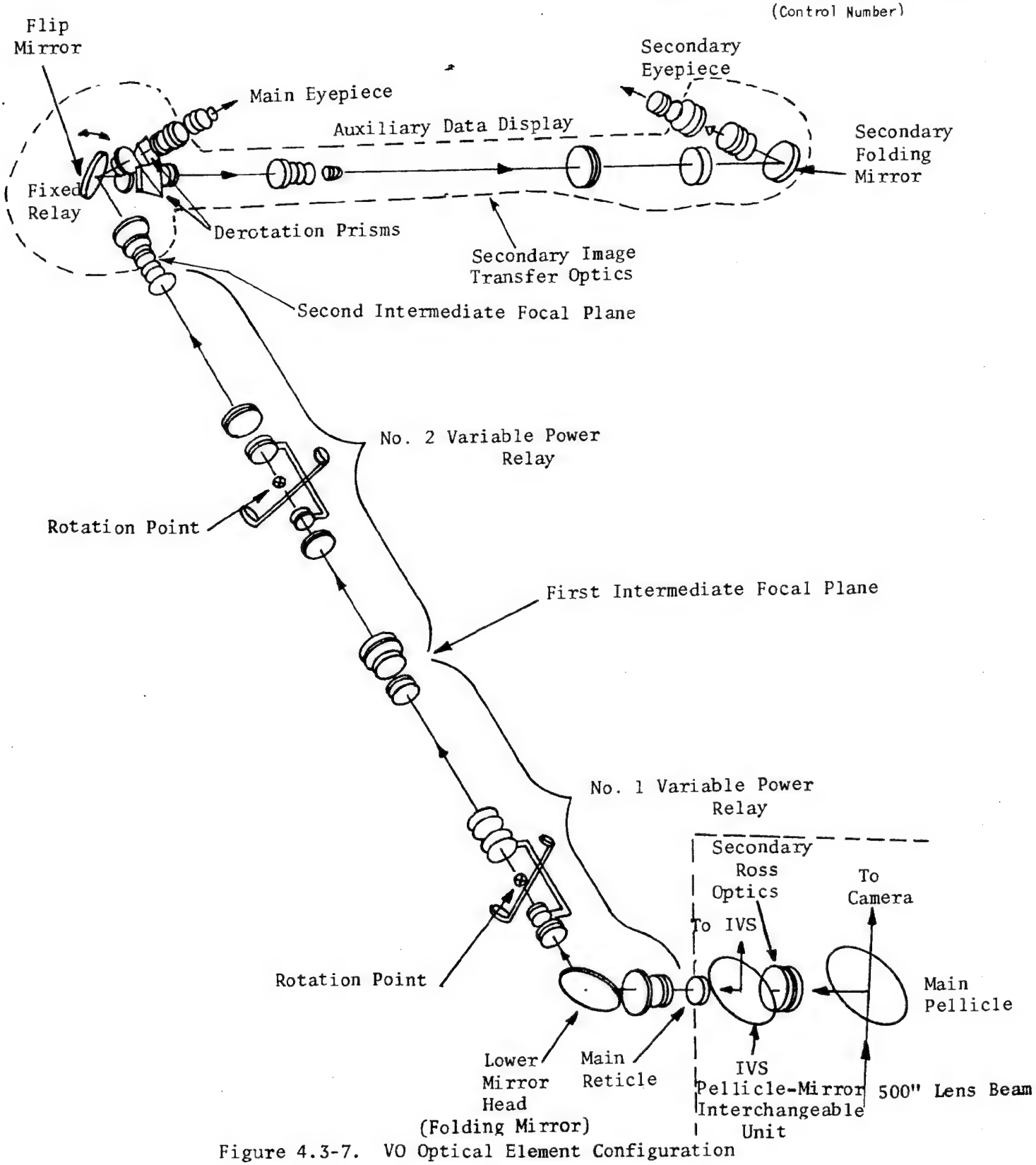

Figure 4.3-7. VO Optical Element Configuration

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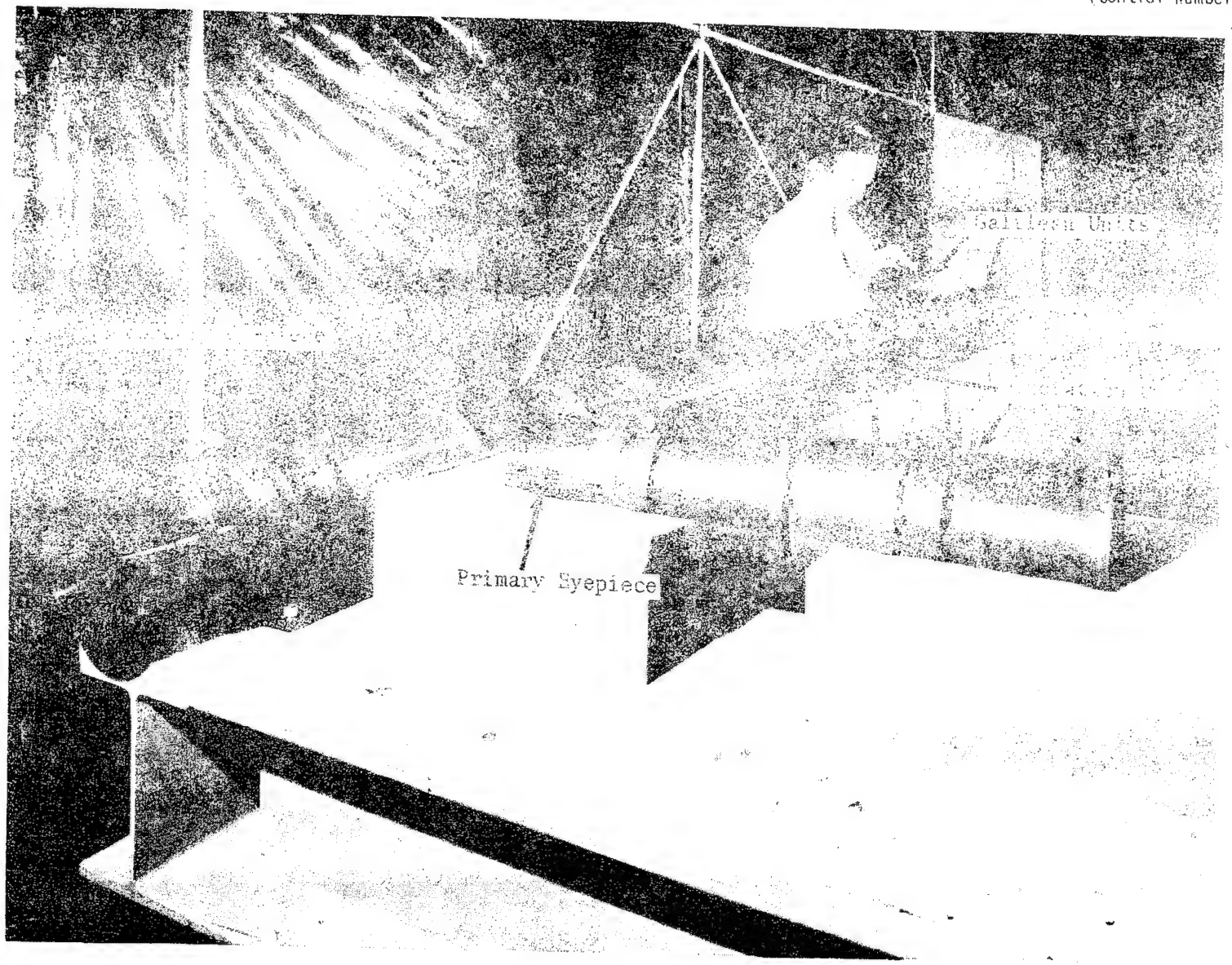

Figure 4.3-8. Formula Sample - Visual Optics Relay and Eyepieces

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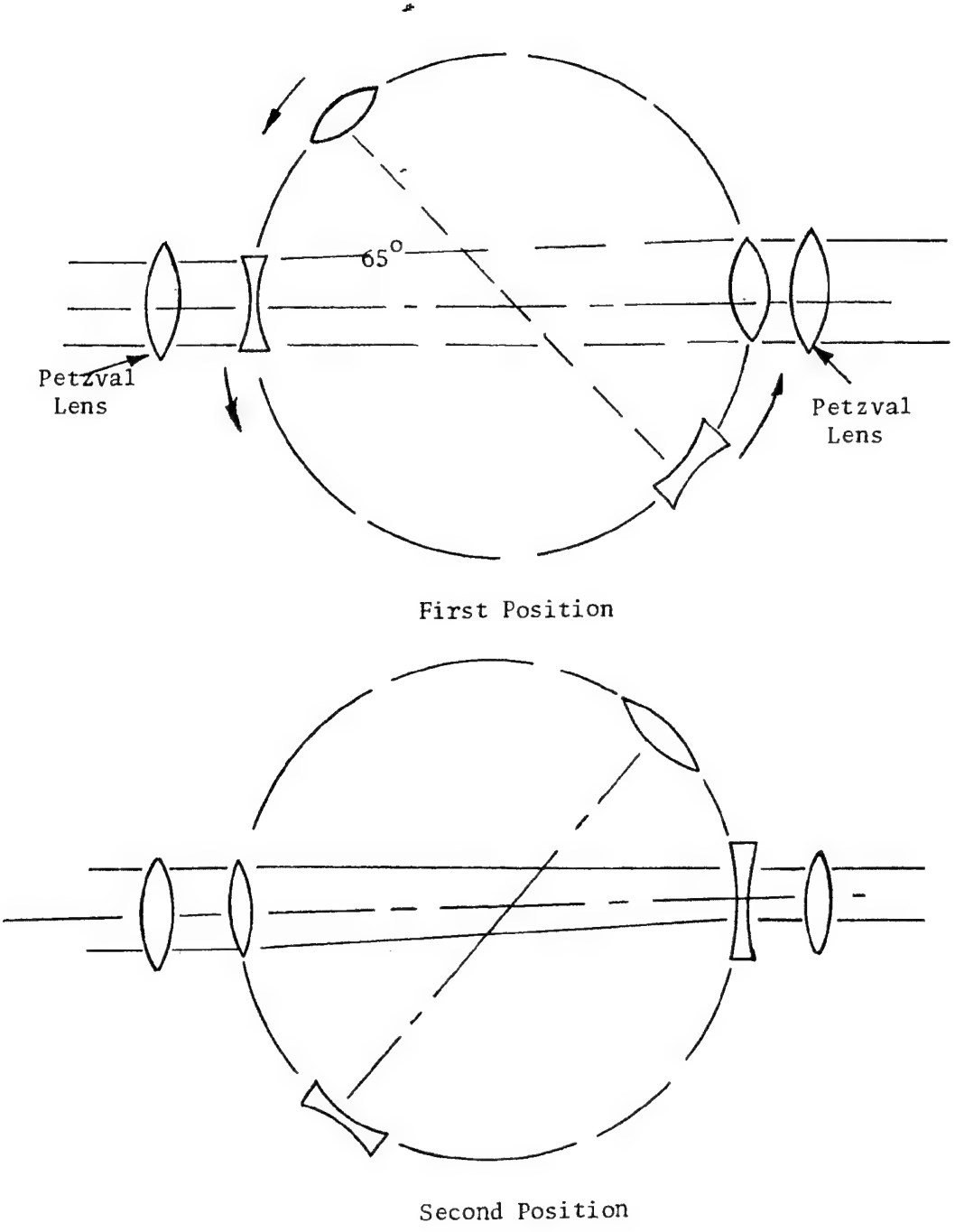

Figure 4.3-9. Magnification Change Unit (Rotatable Galilean Telescope Pair) Mounted in Collimated Light Space of Variable Power Relays

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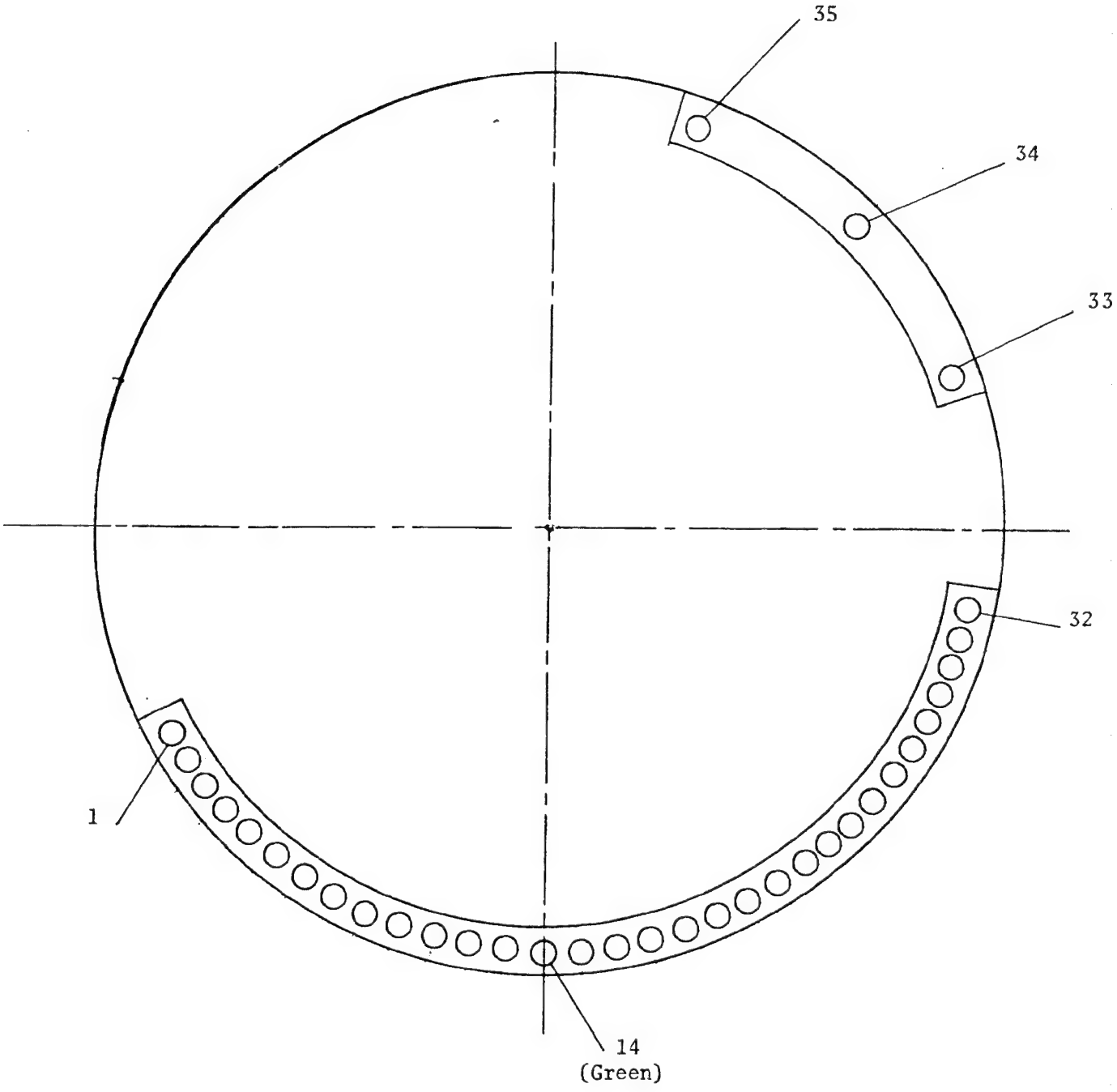

Figure 4.3-10. Auxiliary Data Display

Handle via BYEMAN
Control System Only

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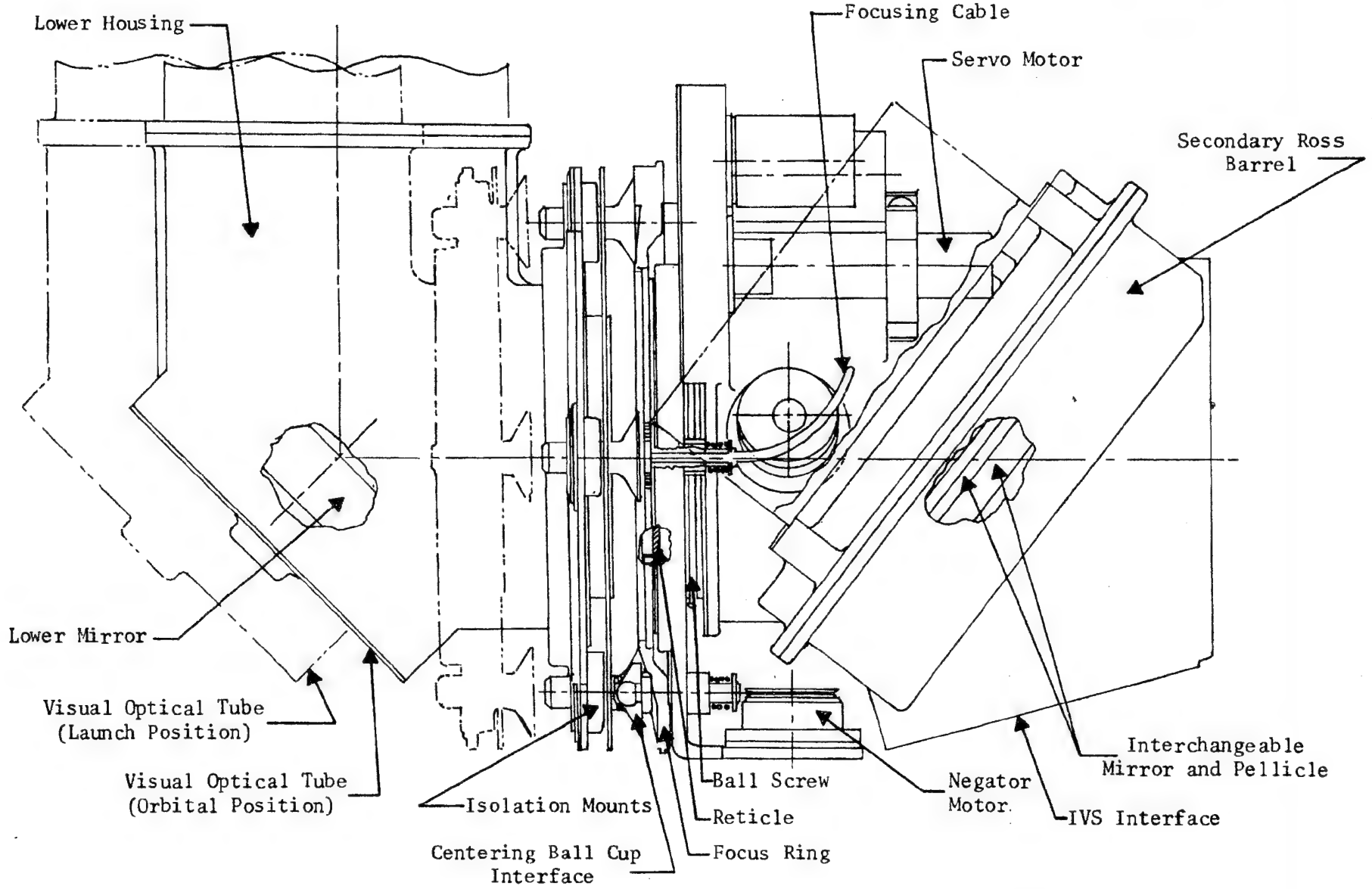

Figure 4.3-11. Retractable Interface Mount, VOA to Secondary Ross Barrel

Handle via BYEMAN
Control System Only

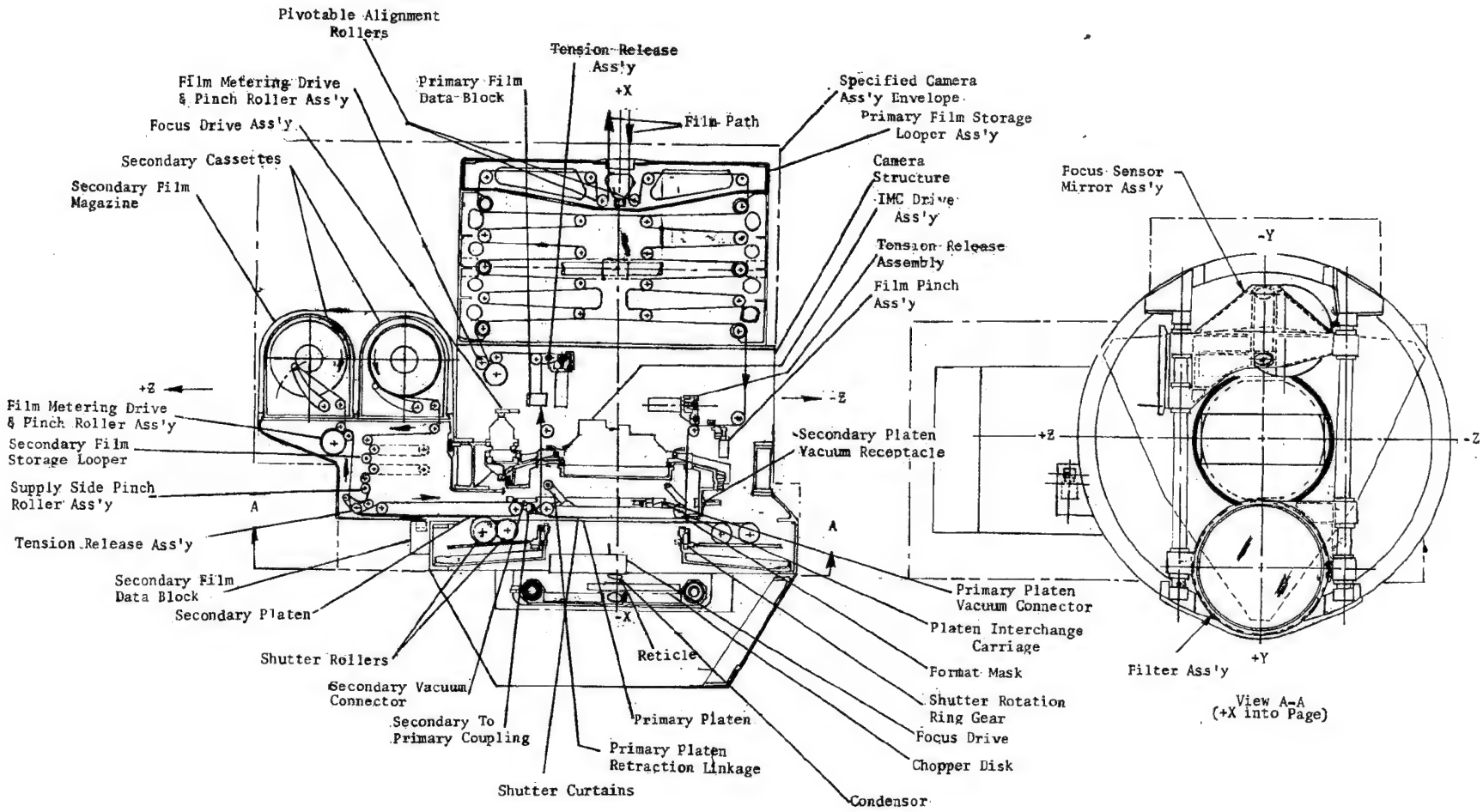

Figure 4.4-1. Camera Assembly

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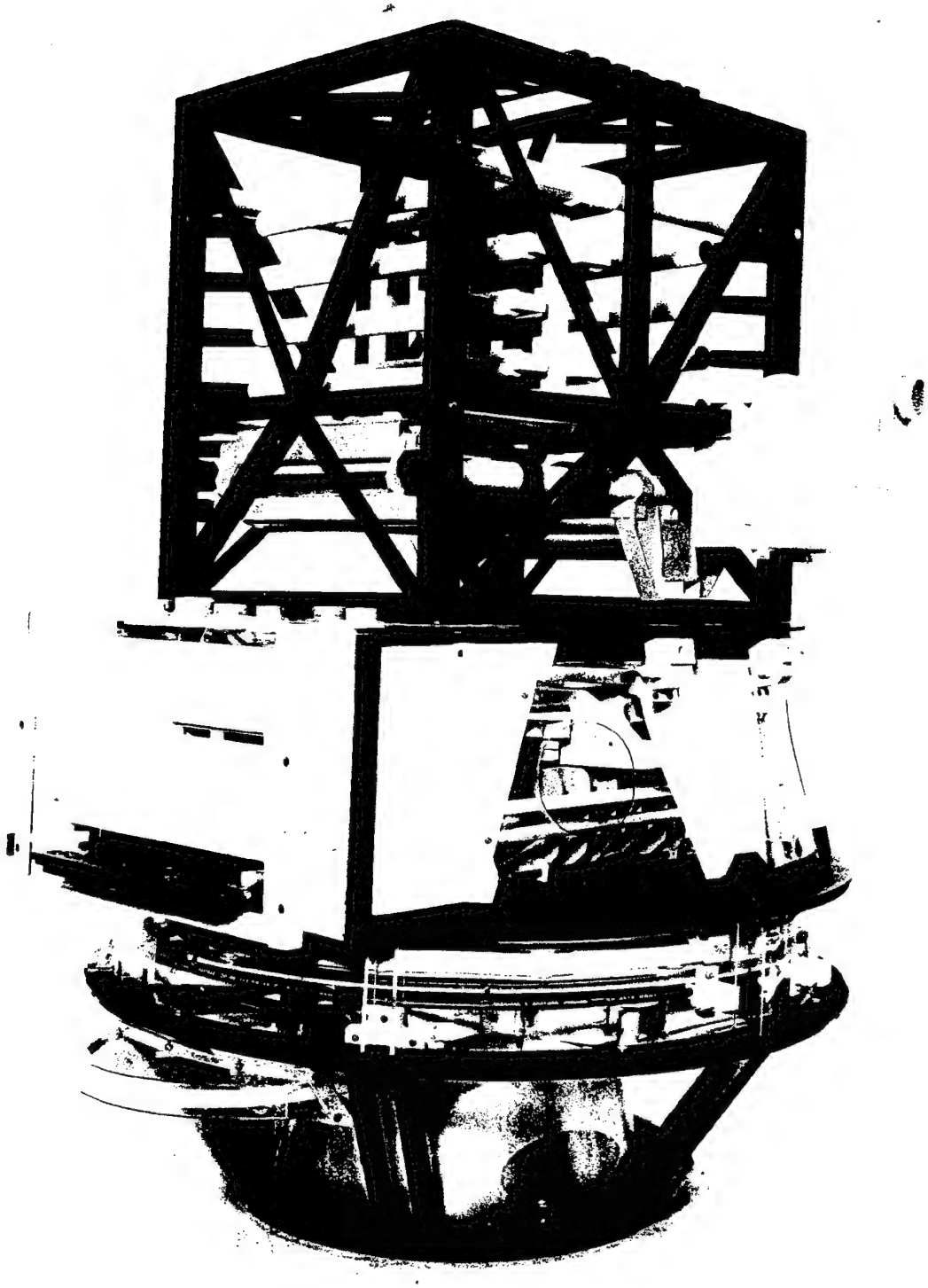

Figure 4.4-2. Camera Simulation Model

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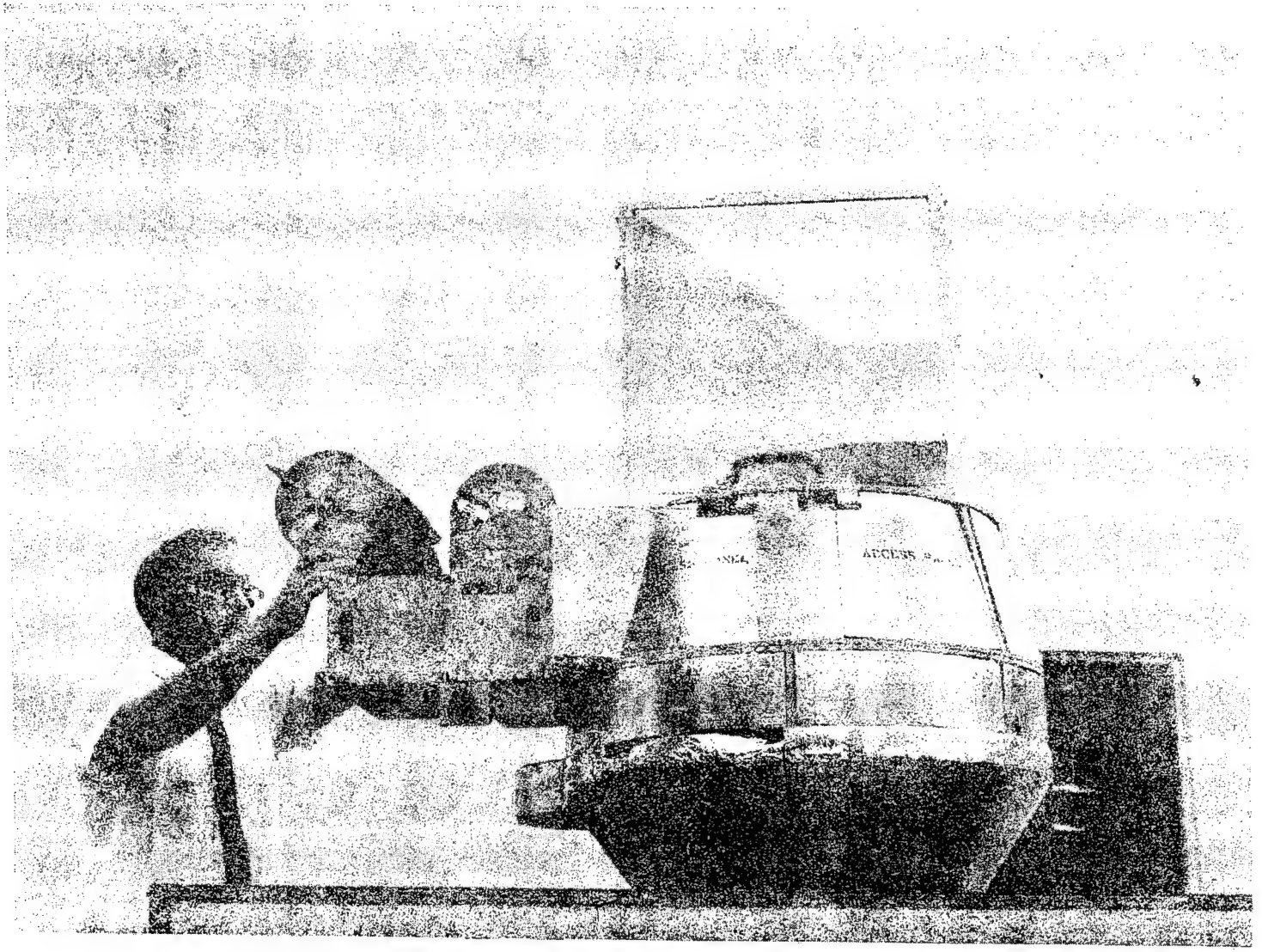

Figure 4.4-3. Camera Mock-up

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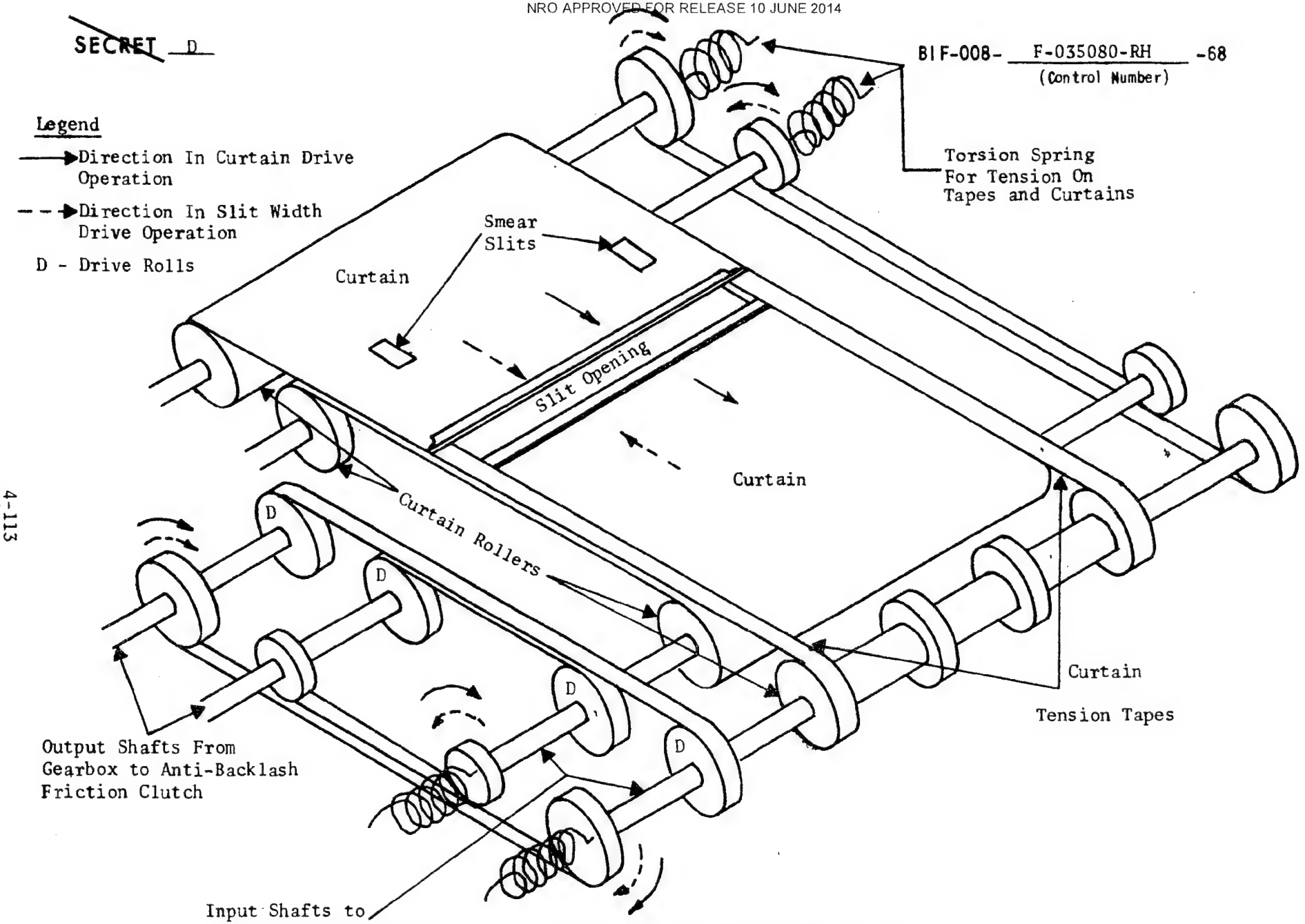

Figure 4.4-4. Shutter-Curtain Drive Tape System

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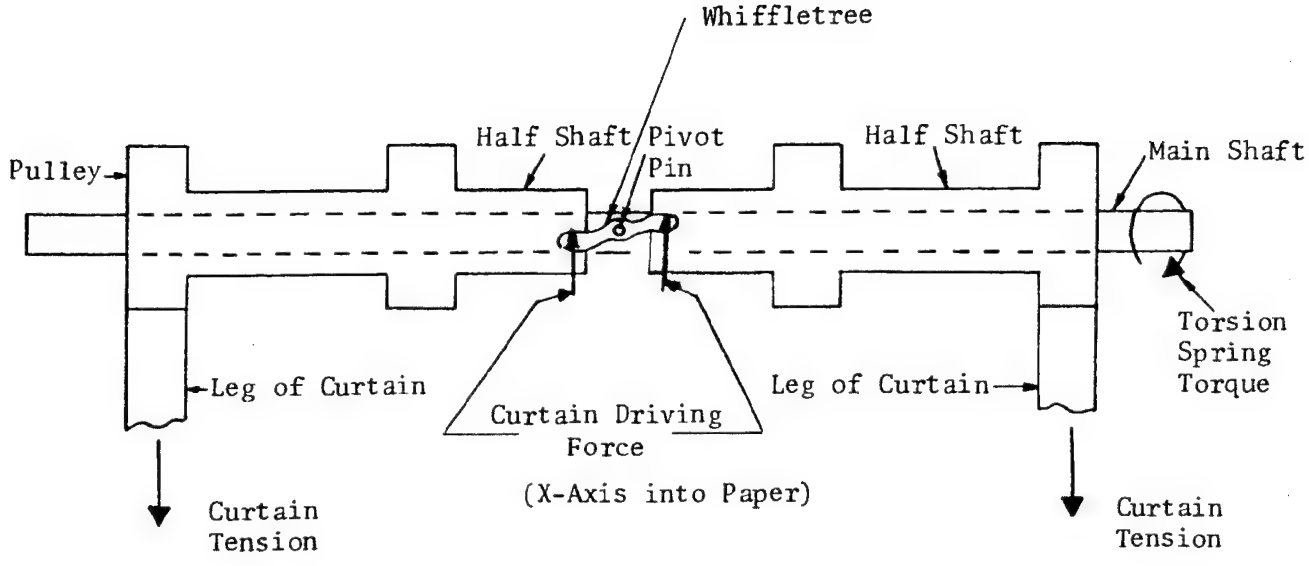

Figure 4.4-5. Whiffletree Assembly

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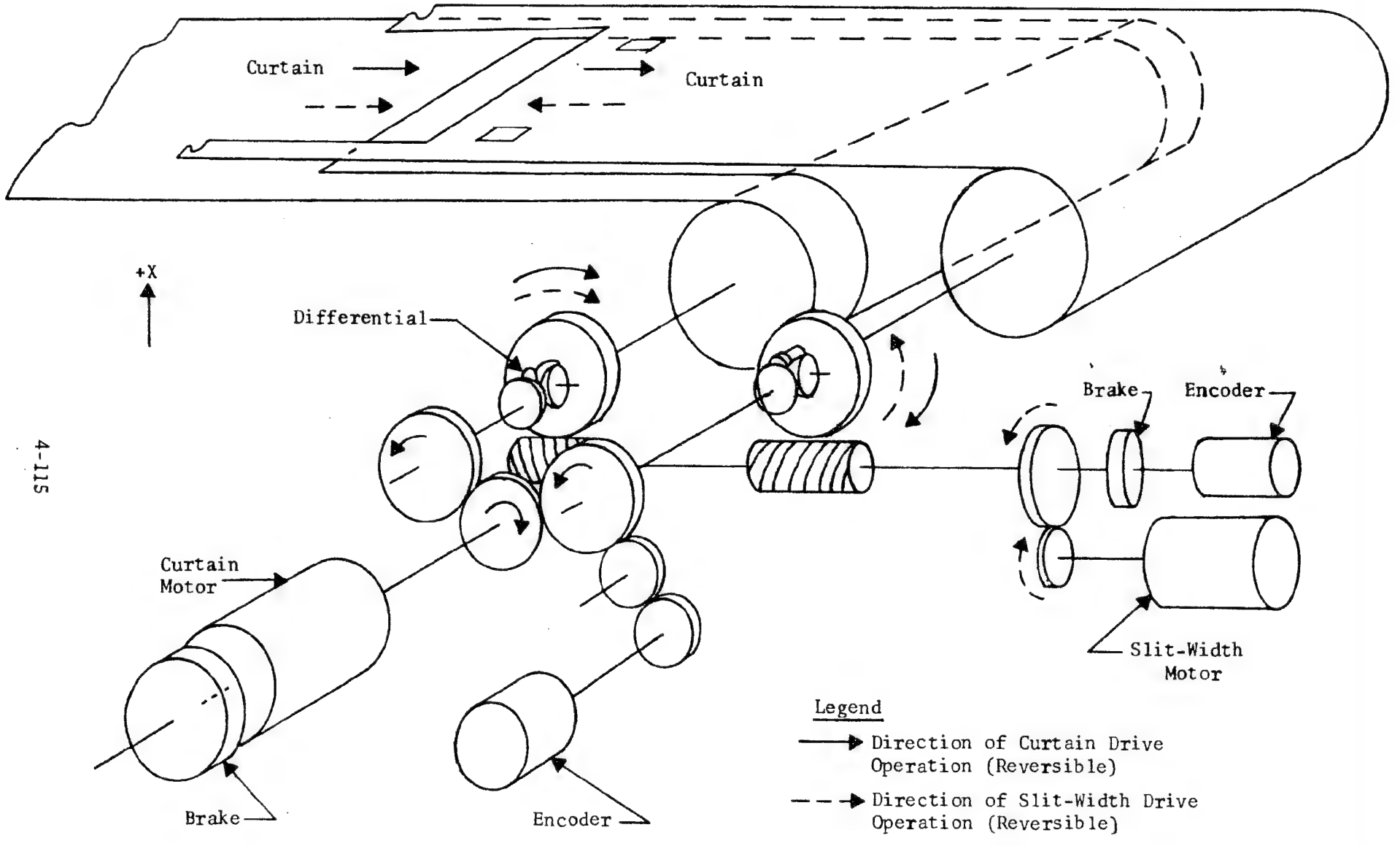

Figure 4.4-6. Curtain and Slit-Width Drive

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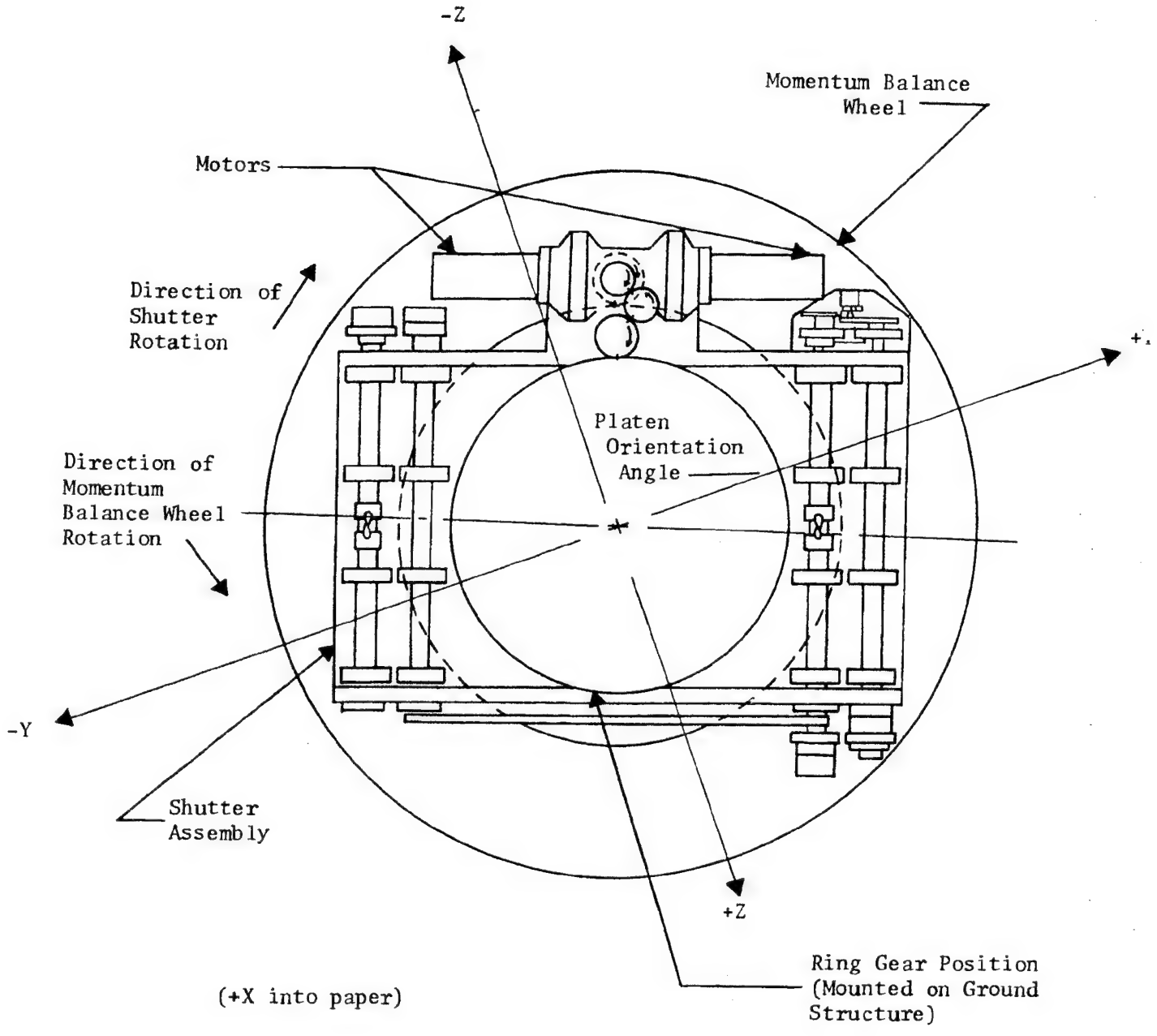

Figure 4.4-7. Shutter Rotation Drive

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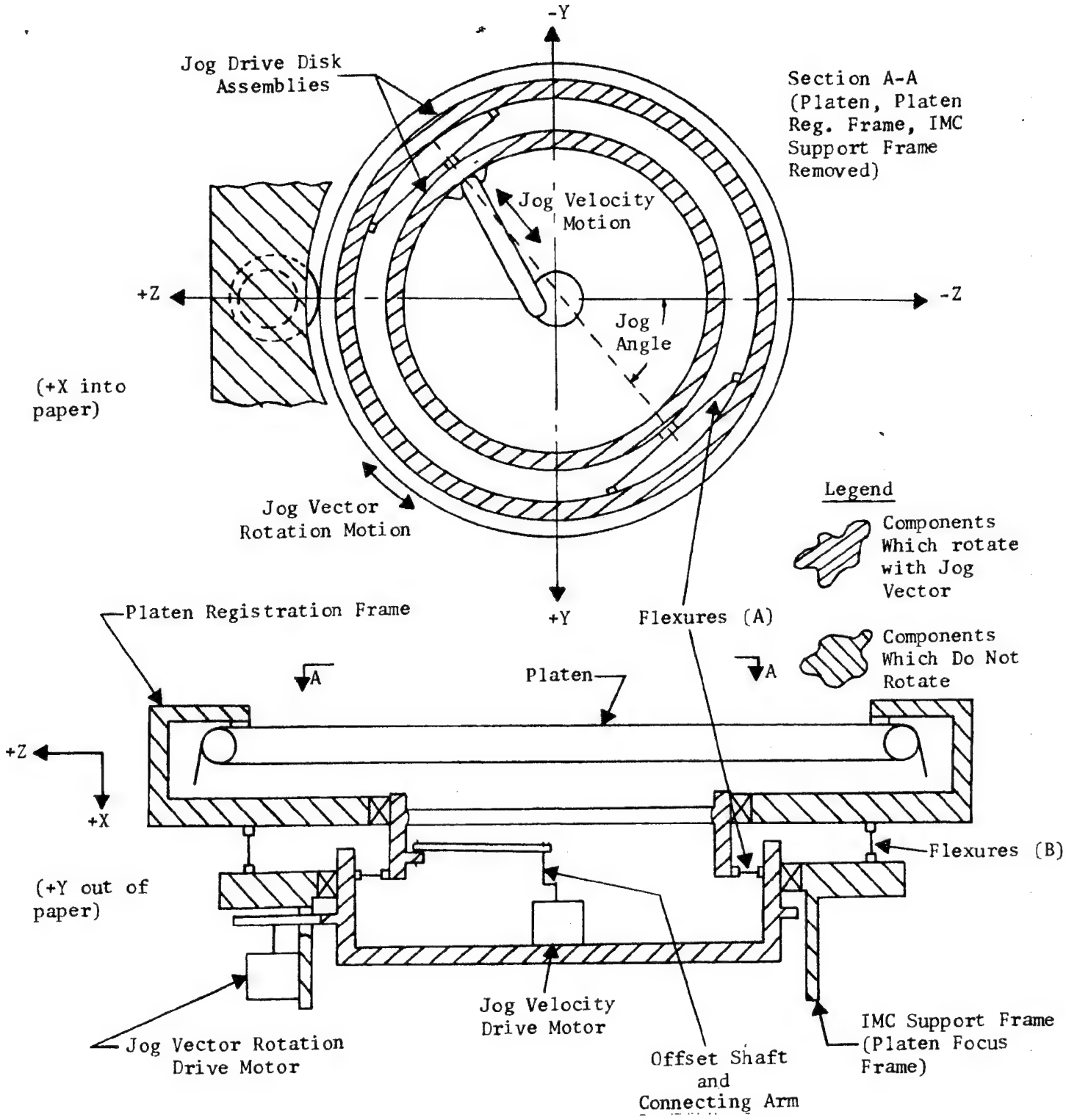

Figure 4.4-8. Image Motion Compensation Schematic

Handle via BYEMAN
Control System Only

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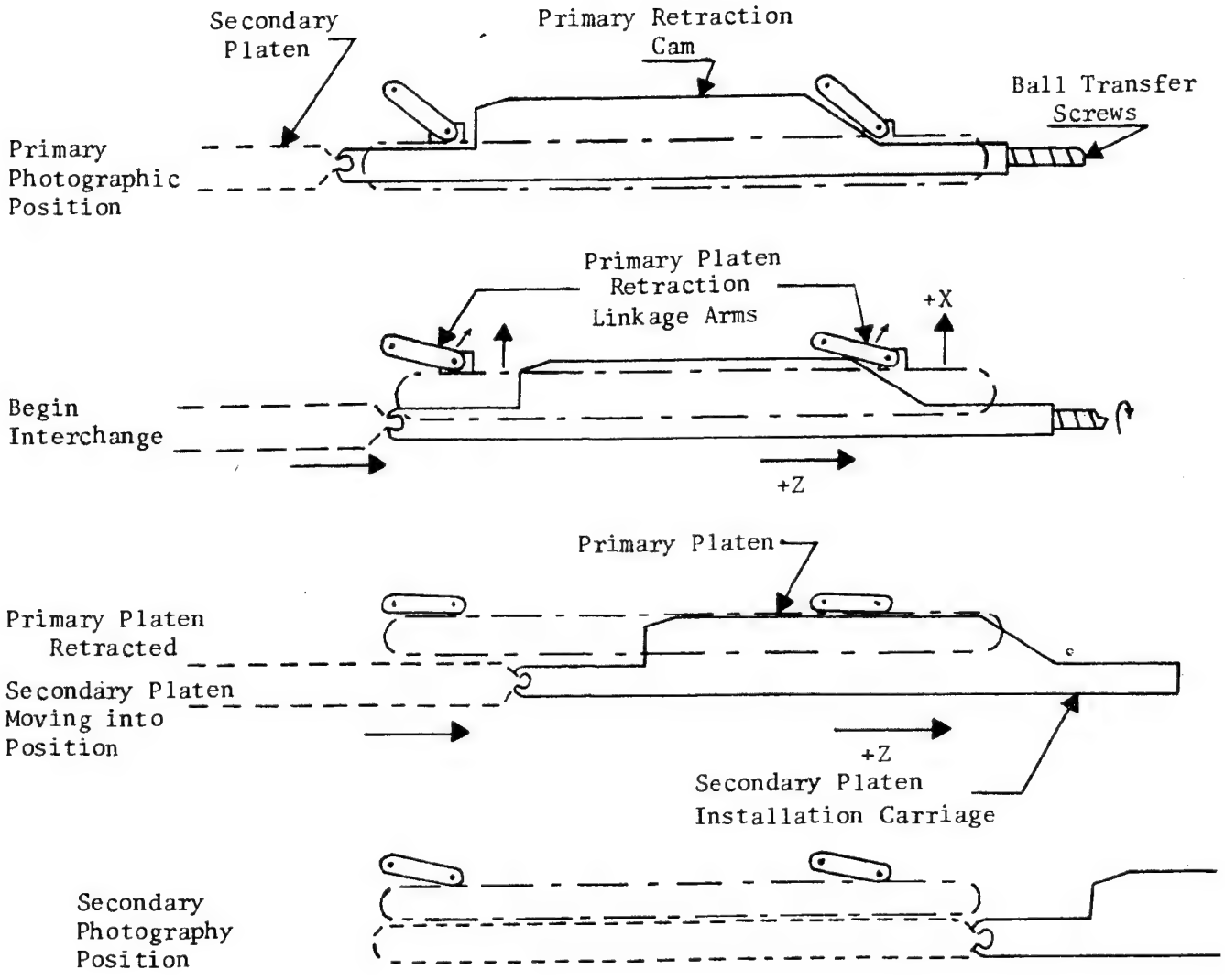

Figure 4.4-9. Schematic Diagram of Platen Interchange Mechanism Sequence

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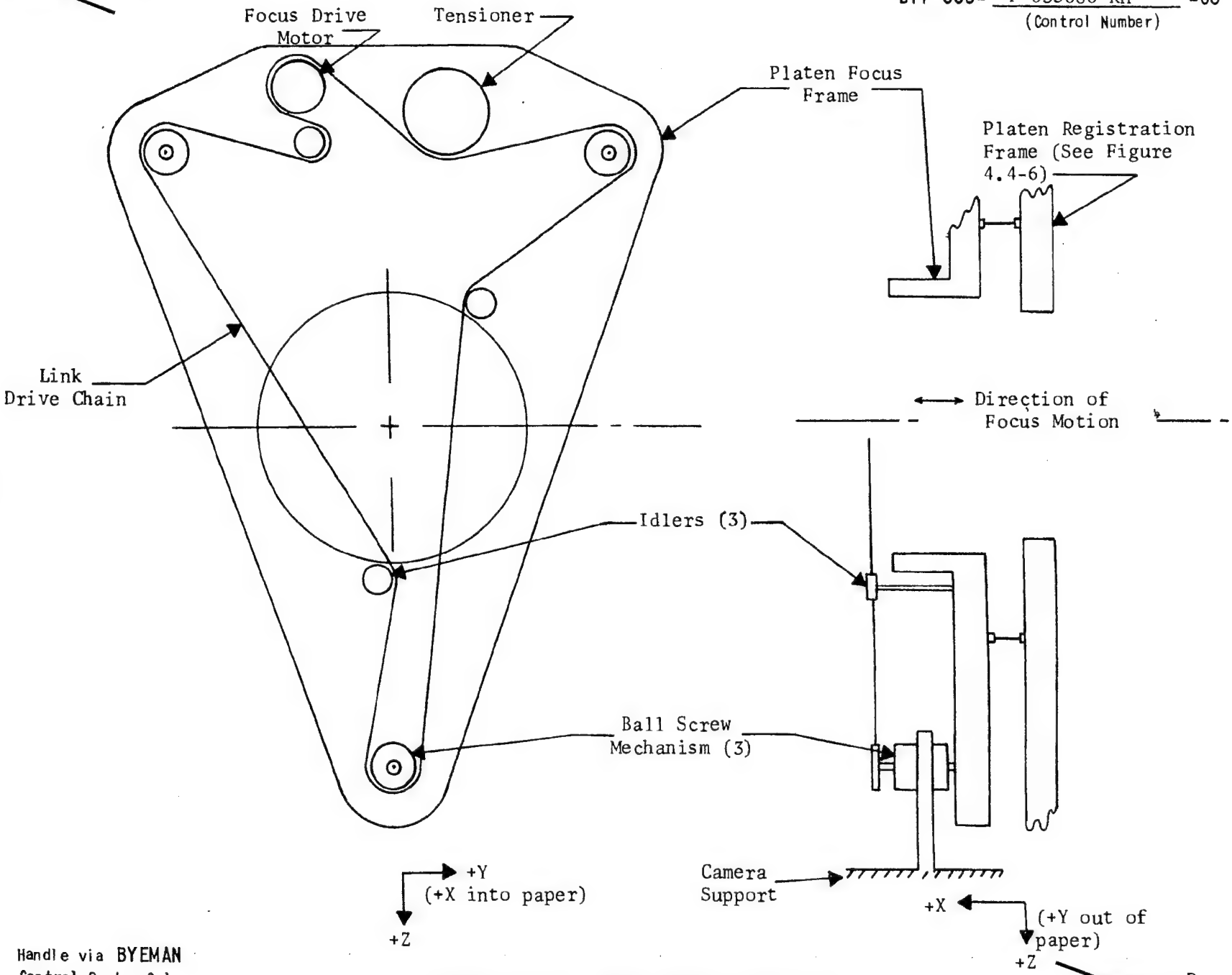

Figure 4.4-10. Focus Drive Schematic

Handle via BYEMAN Control System Only

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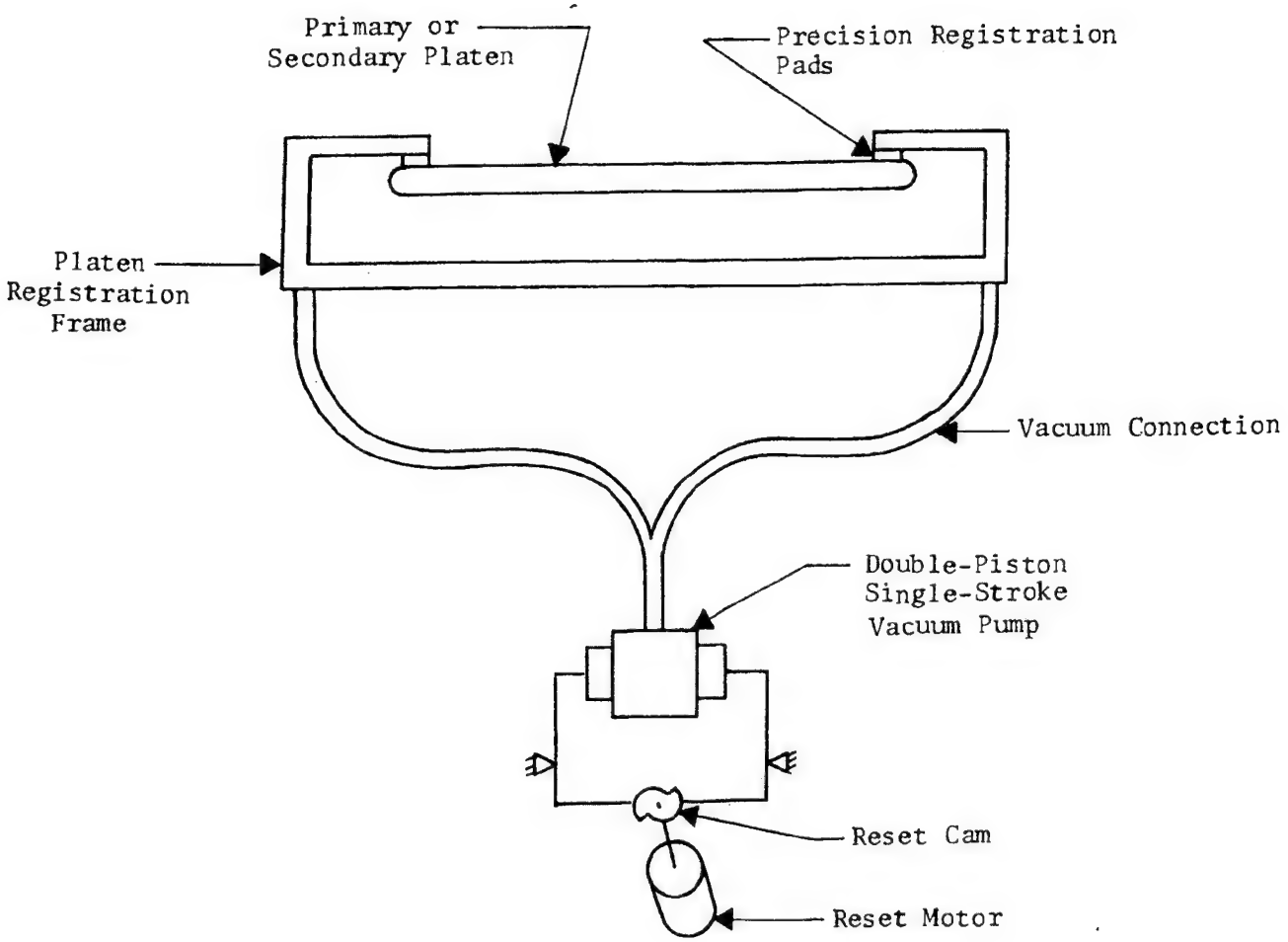

Figure 4.4-11. Vacuum System Schematic

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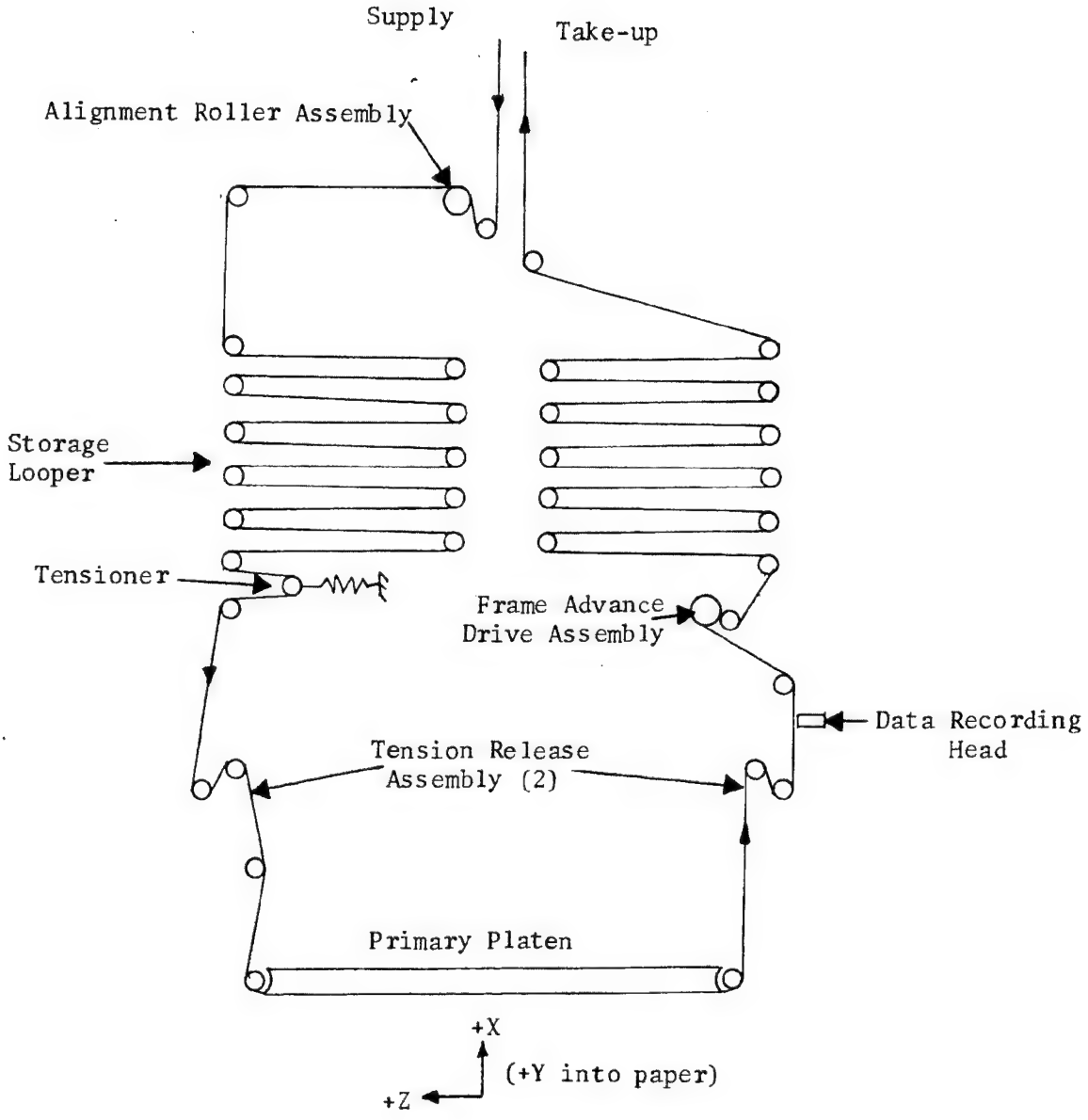

Figure 4.4-12. Primary Film Handling Assembly Schematic

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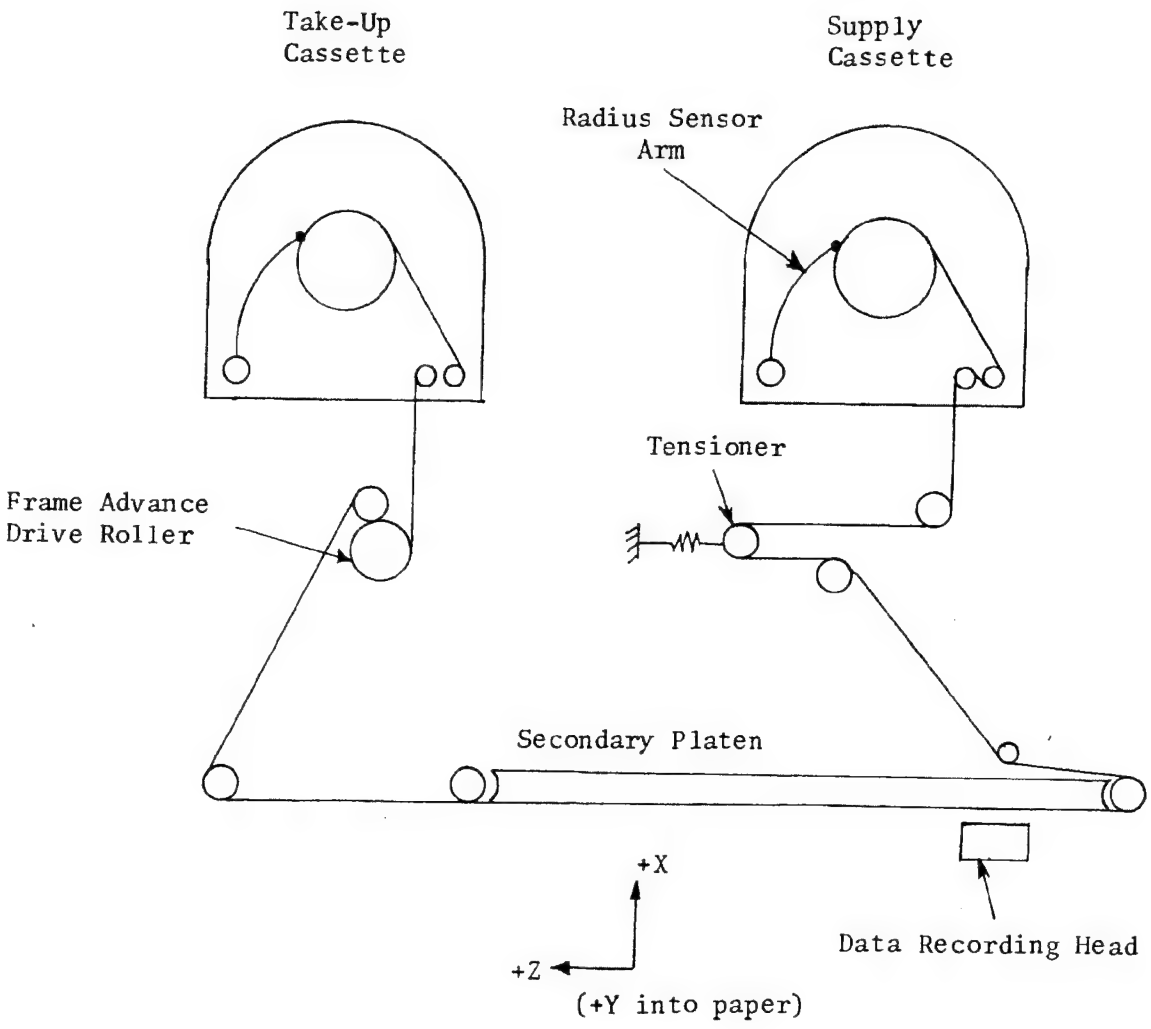

Figure 4.4-13. Secondary Film Handling Assembly Schematic

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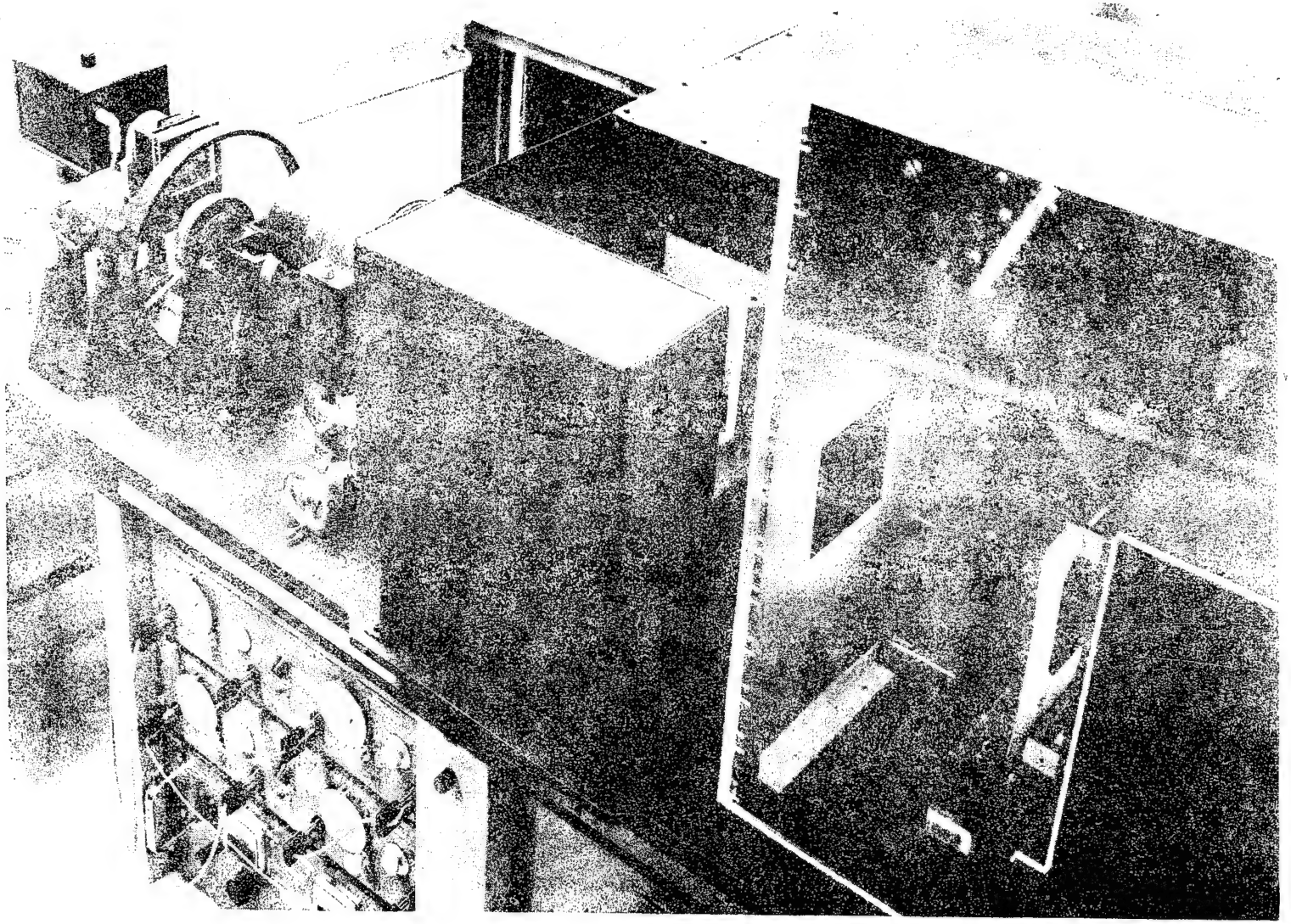

Figure 4.4-13(a). Focus Sensor Breadboard

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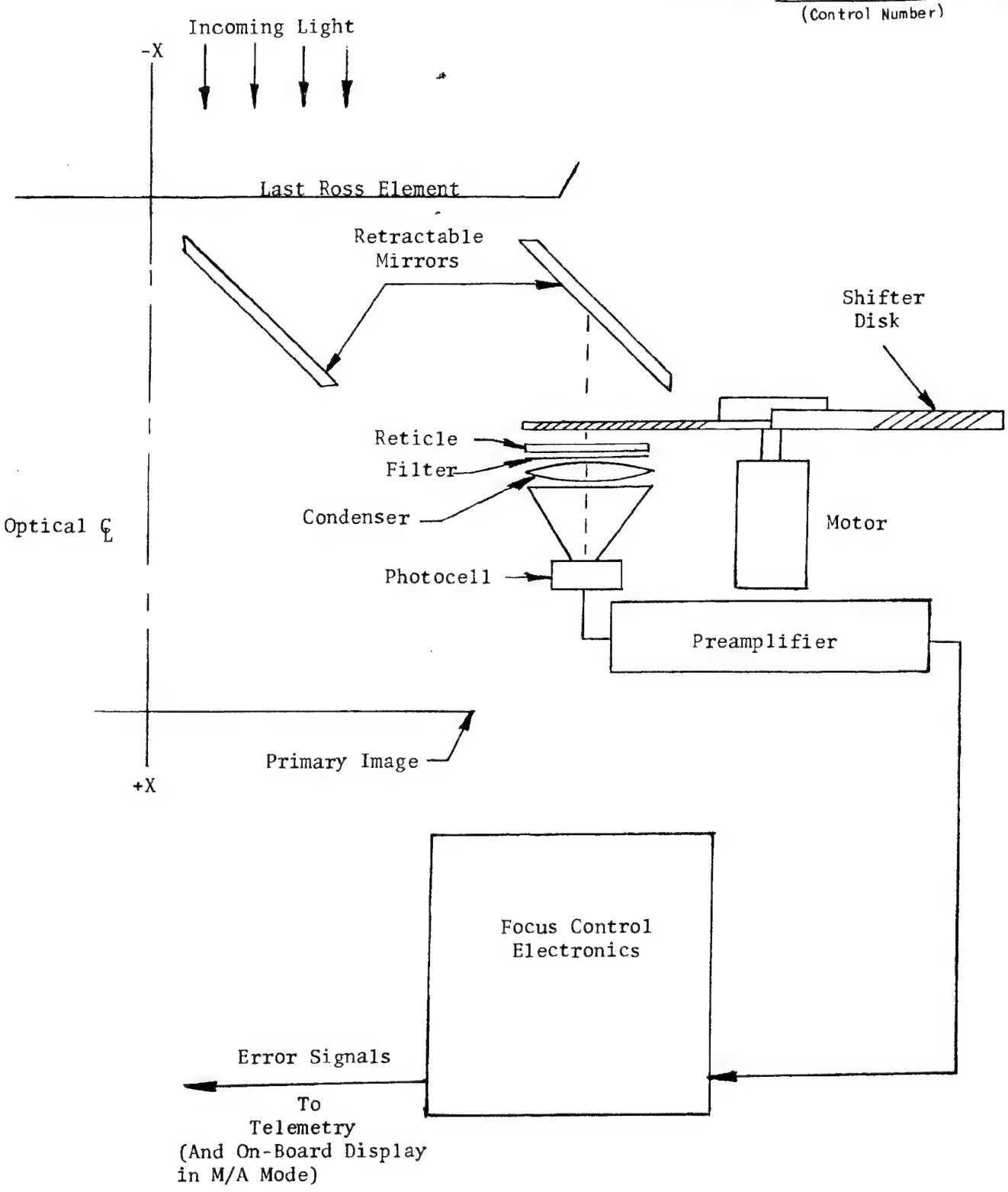

Figure 4.4-14. Focus Sensor Schematic Block Diagram

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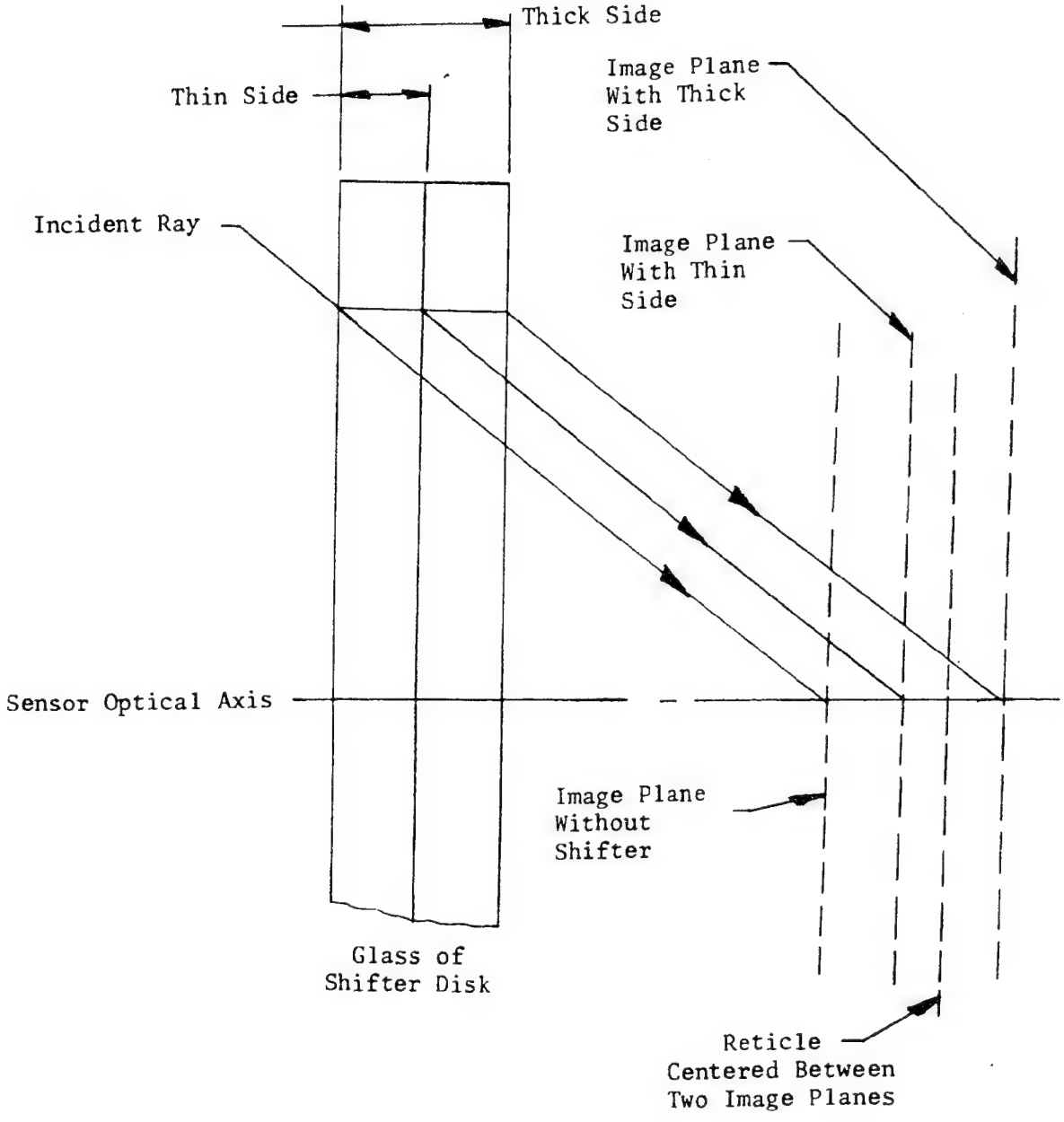

Figure 4.4-15. Focus Sensor Image Planes

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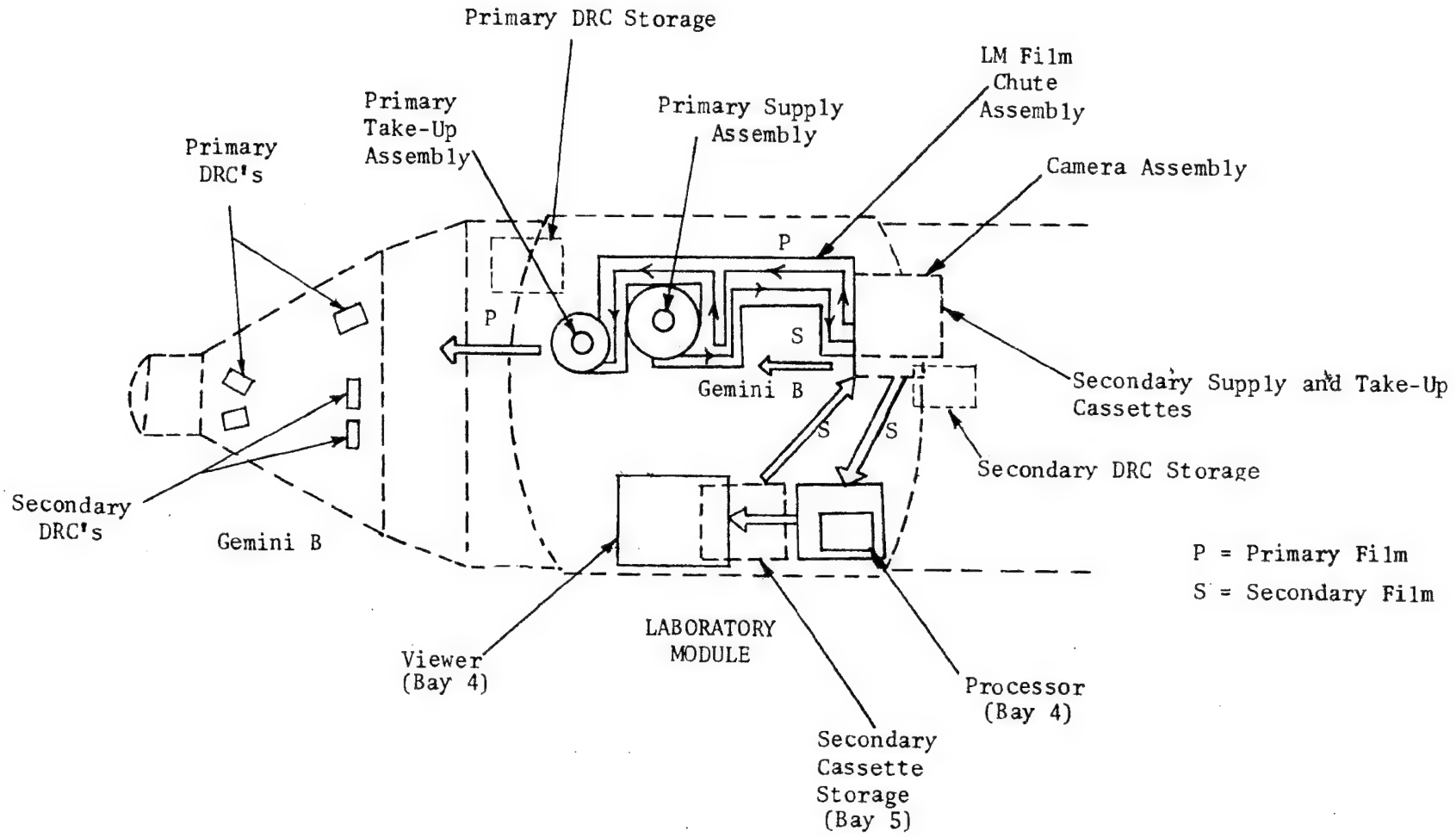

Figure 4.5-2. LM Film Handling Concept - M/A Mode

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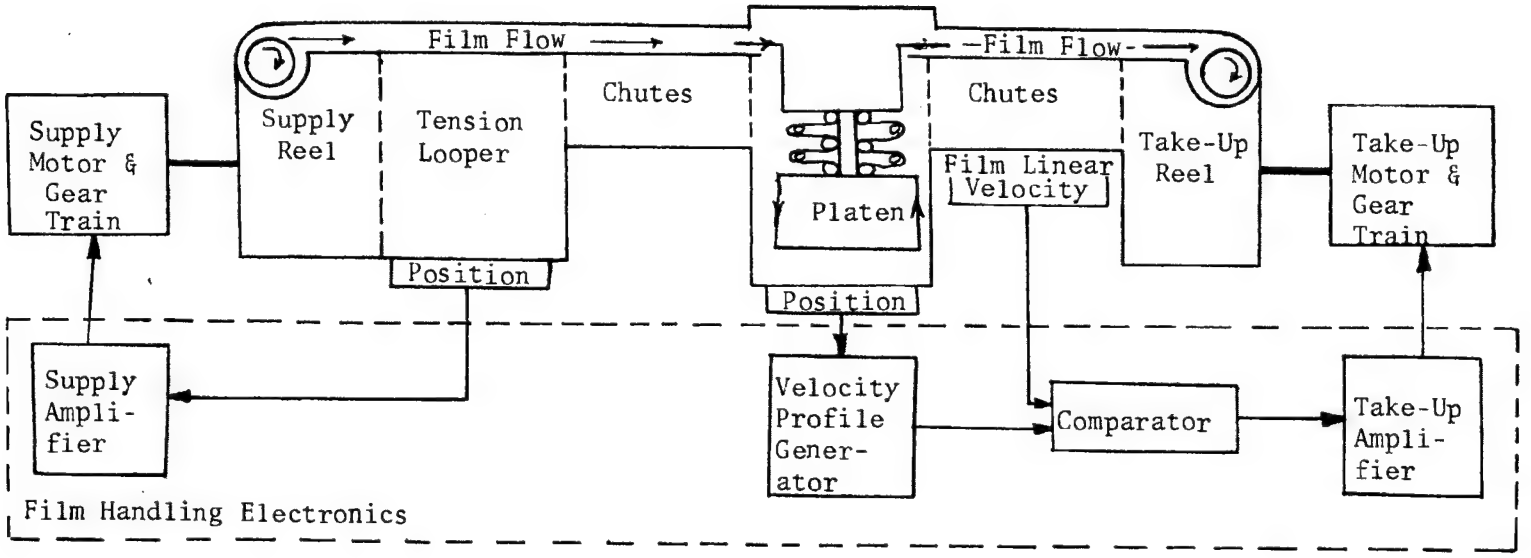

Figure 4.5-3. Block Diagram Primary Film Handling Control - Manned/Automatic Mode

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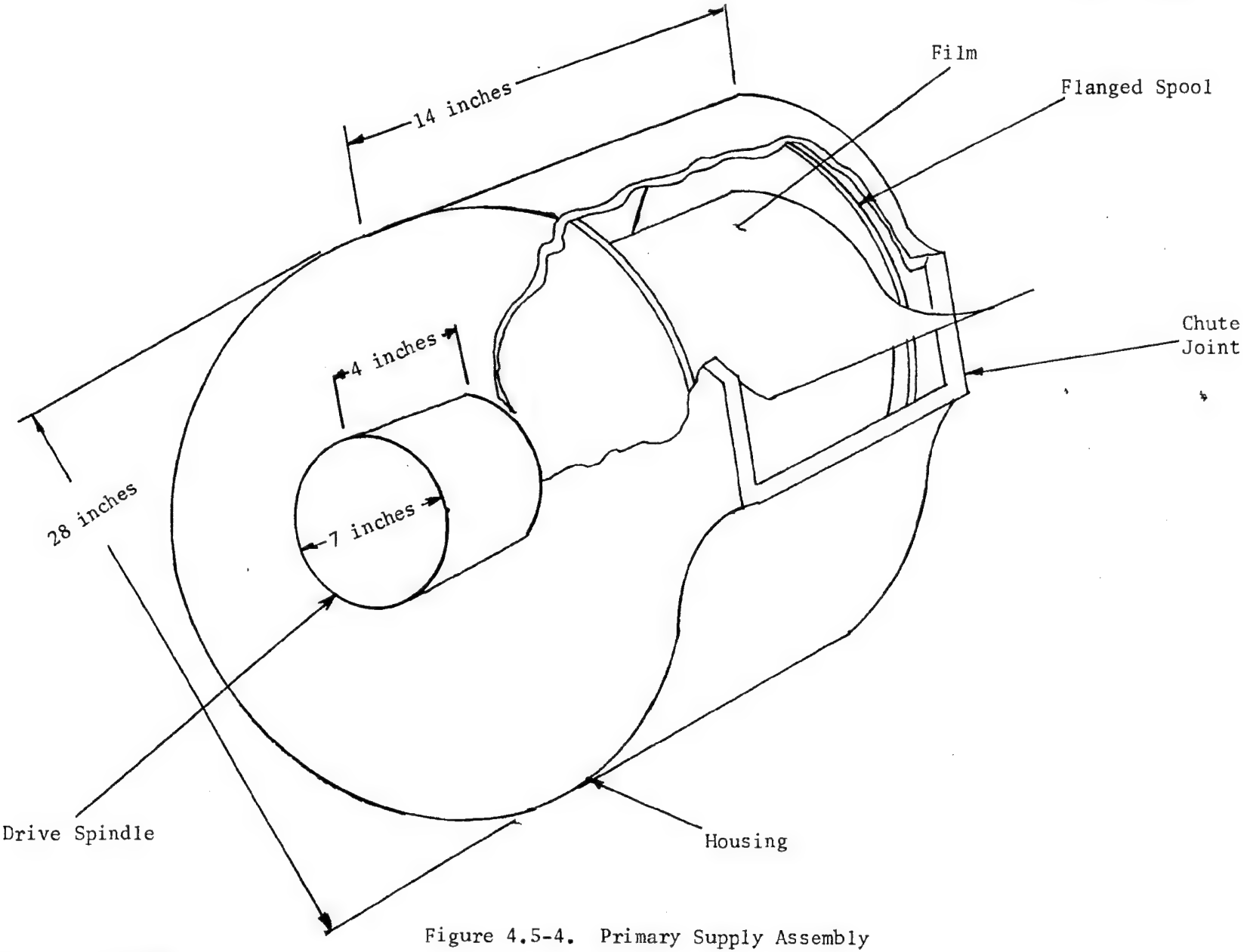

Figure 4.5-4. Primary Supply Assembly

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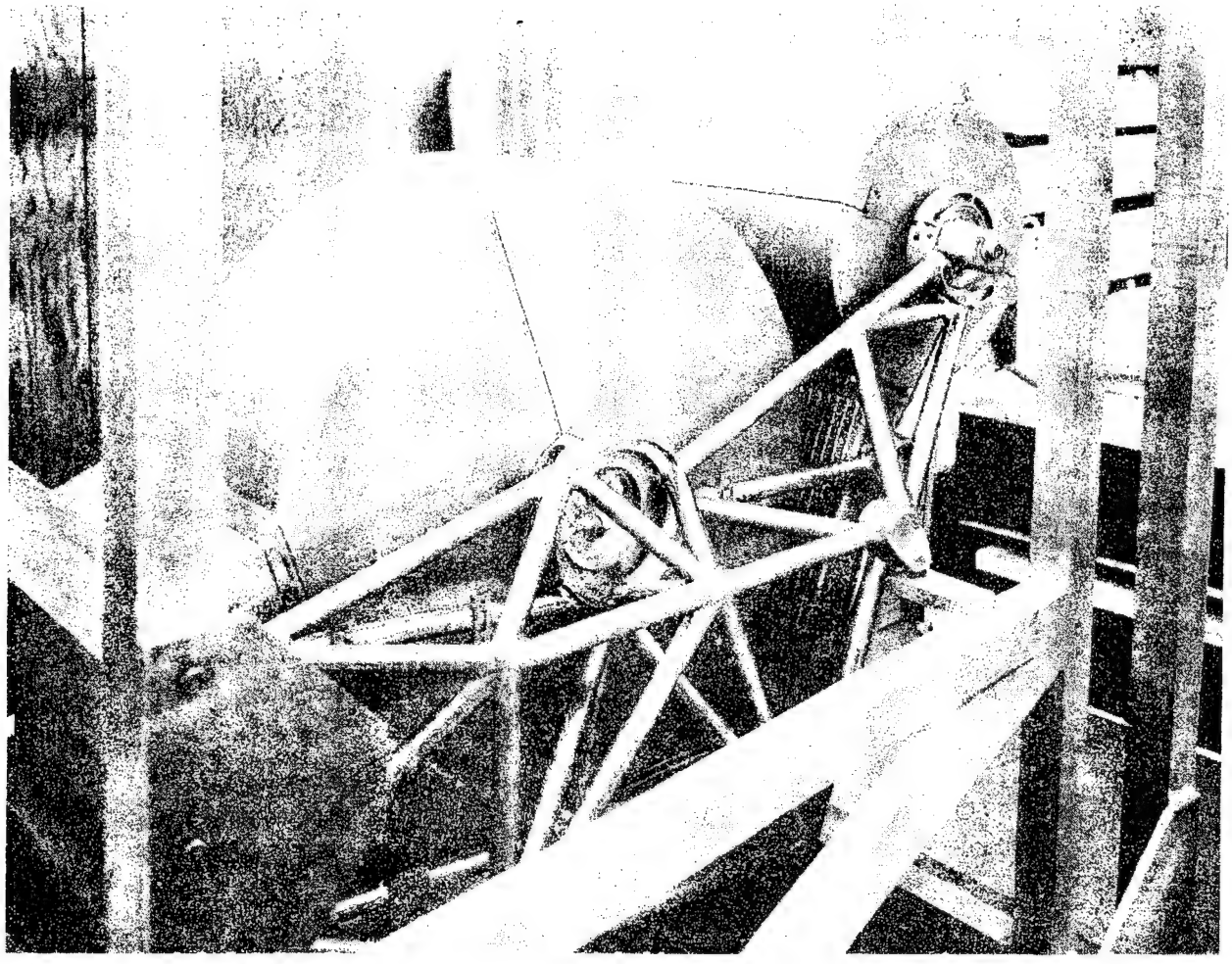

Figure 4.5-5. Primary Supply Assembly Engineering Model

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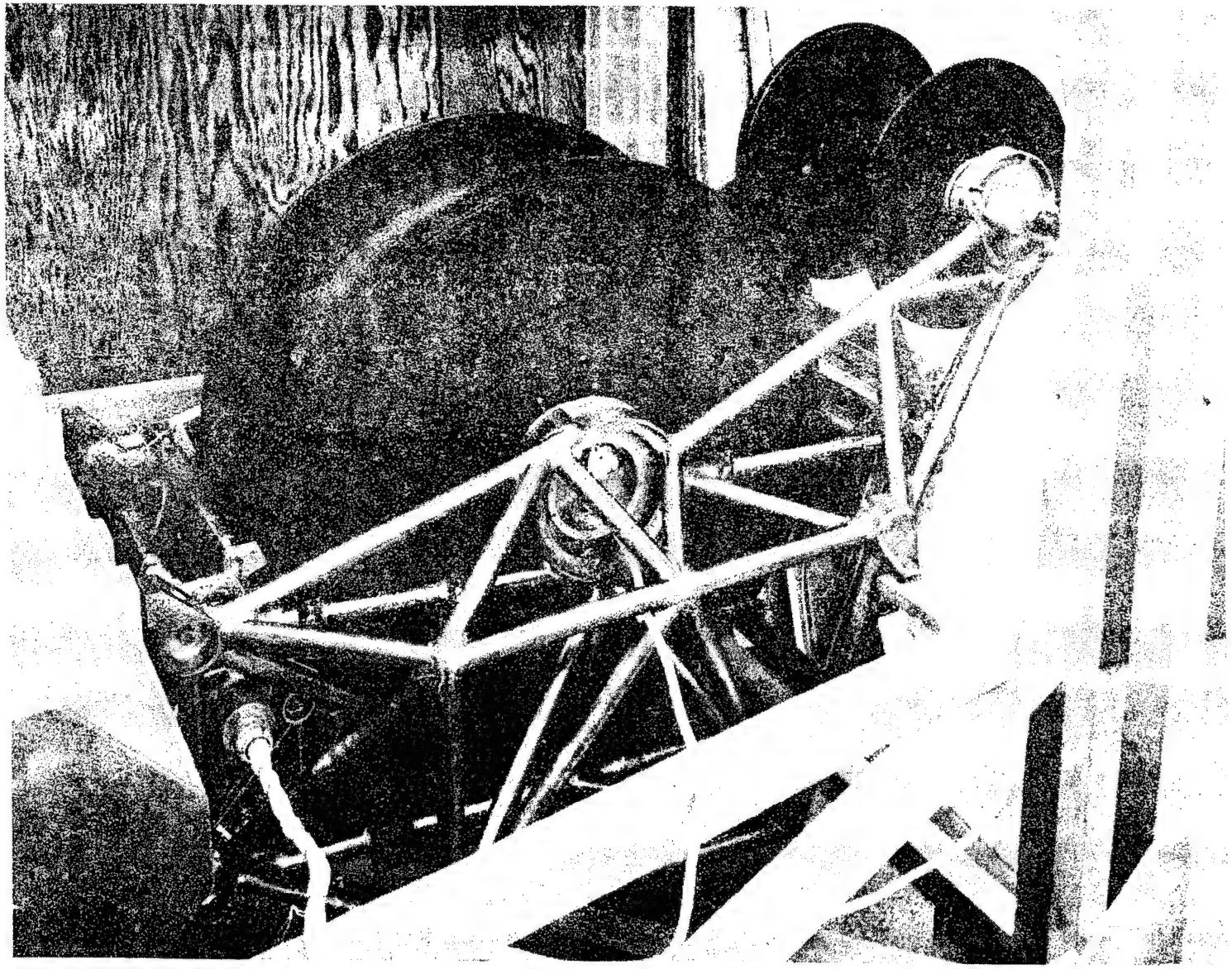

Figure 4.5-6. Film Transport System Supply Spool and Take-Up Reel

Handle via BYEMAN
Control System Only

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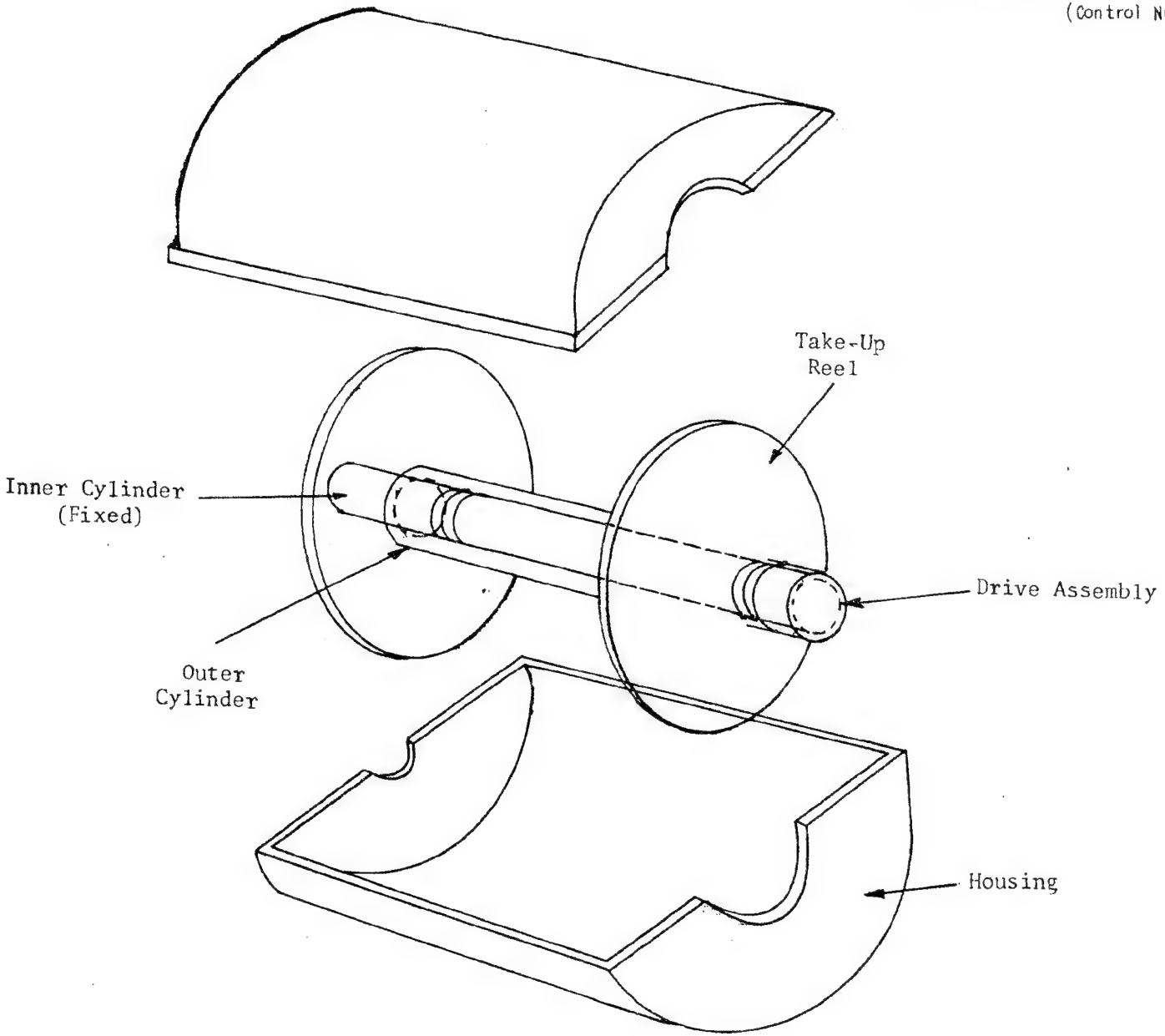

Figure 4.5-7. Primary Take-Up Assembly Concept

Handle via BYEMAN
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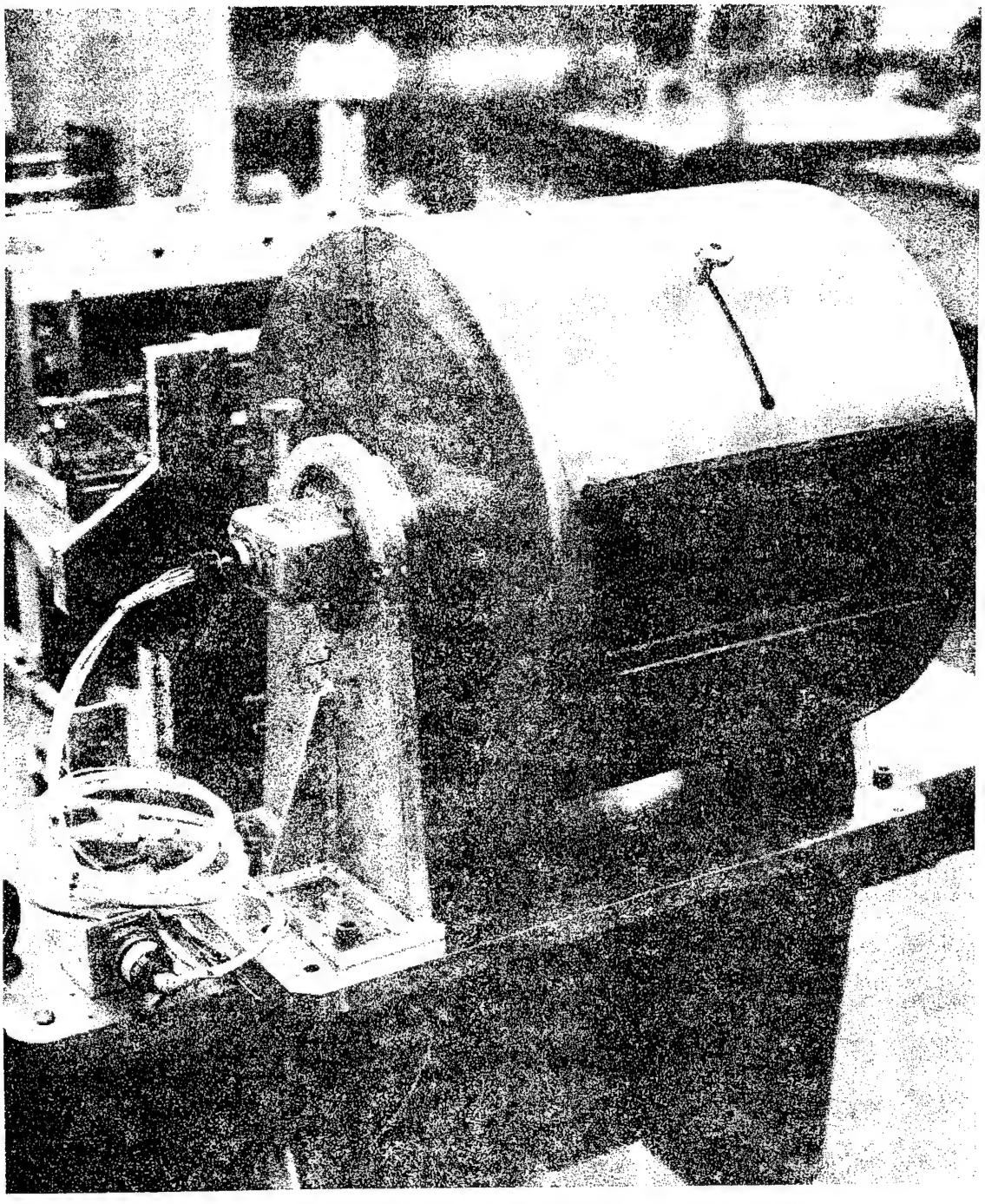

Figure 4.5-8. Film Take-Up Assembly

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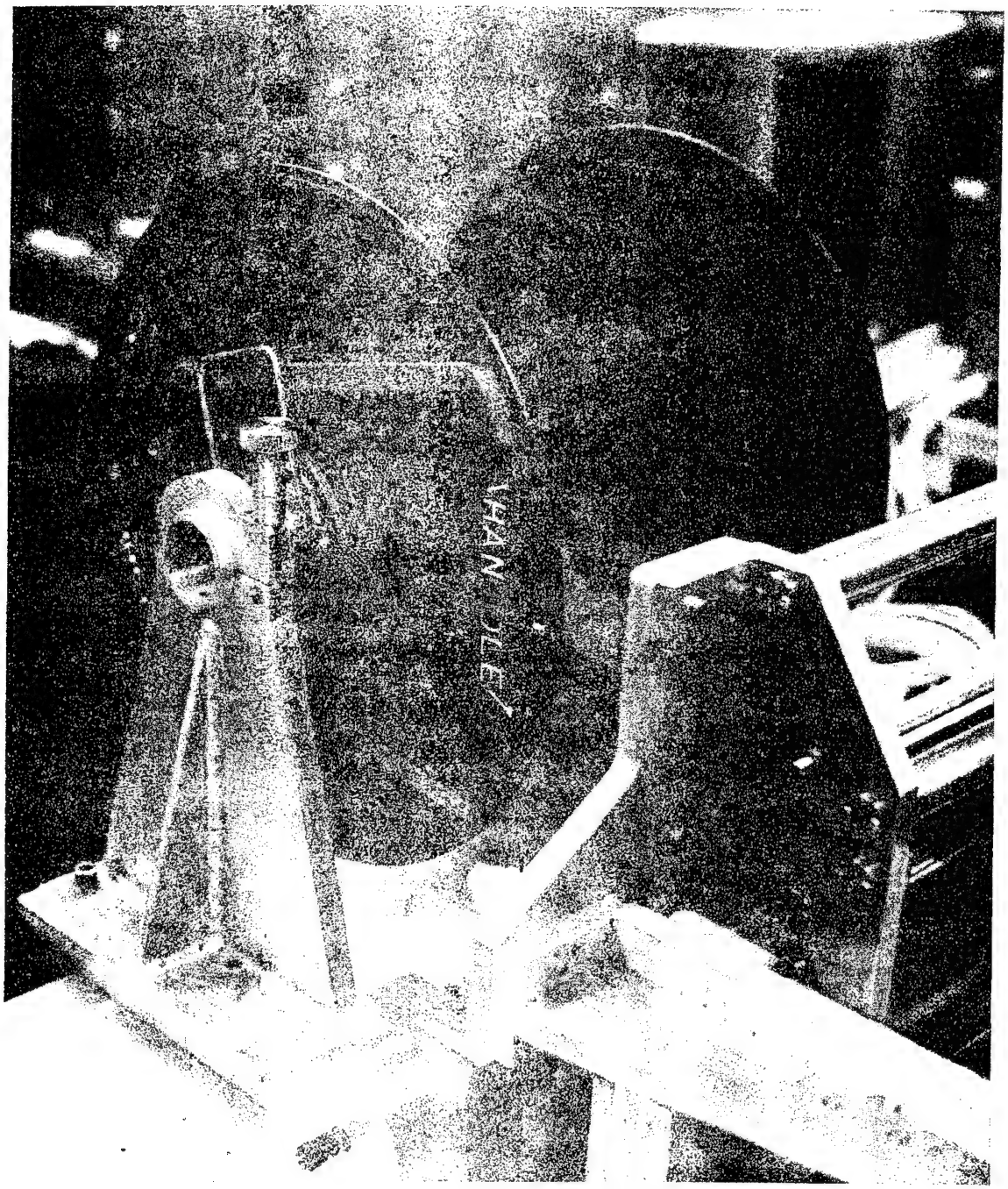

Figure 4.5-9. Film Take-Up Assembly - Spool and DAC Mounting Flange

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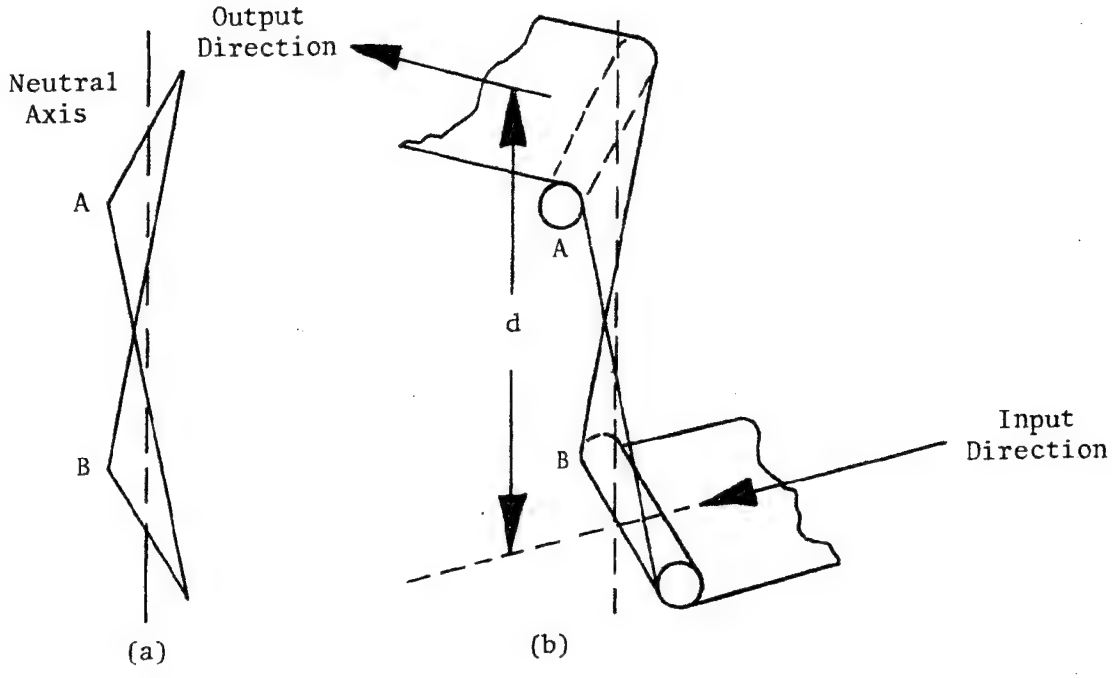

Figure 4.5-10. Film Neutral Axis

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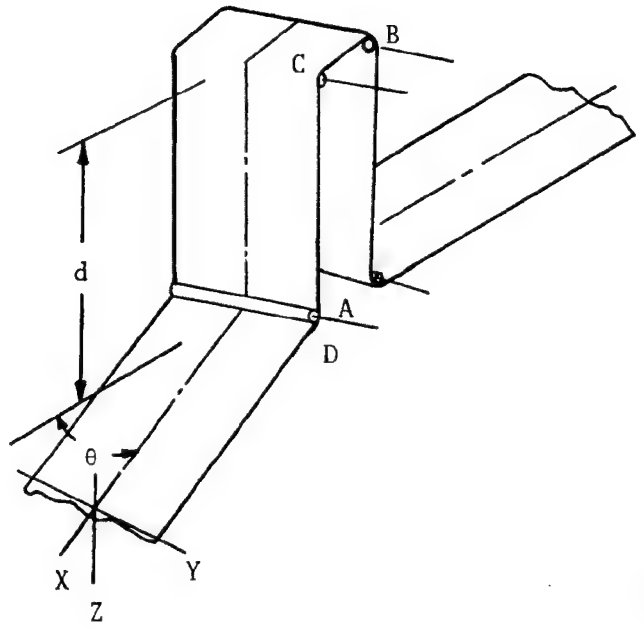
Limitation:

$$\theta = \frac{2 \text{ degrees} \times 2d}{\text{Foot}}$$



Ground Rules:

All rollers must lie in planes parallel to the XY plane.

Rollers B and C must be parallel to each other.

Figure 4.5-11. Neutral Axis Rotation Concept

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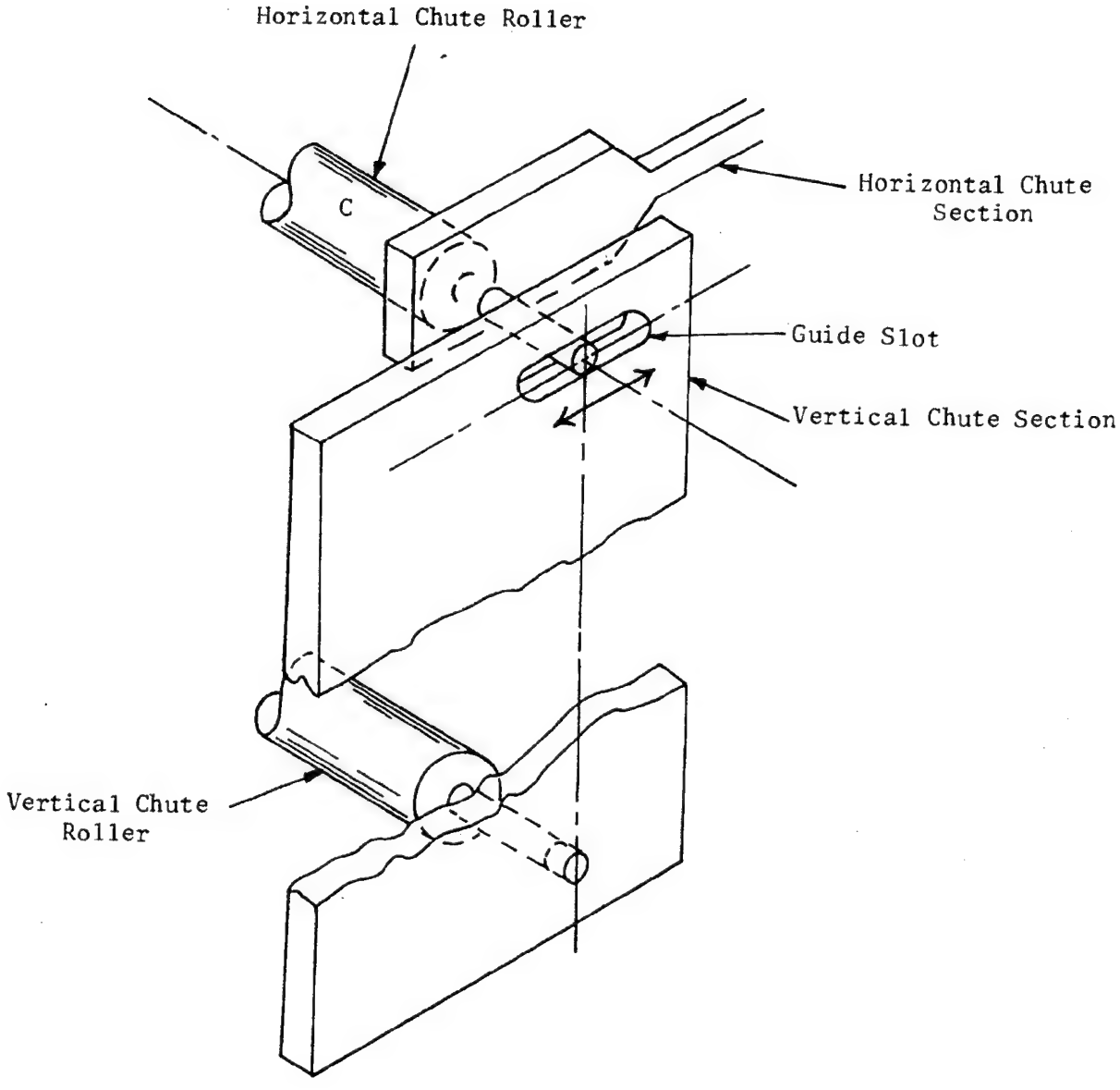

Figure 4.5-12. Horizontal Chute Support

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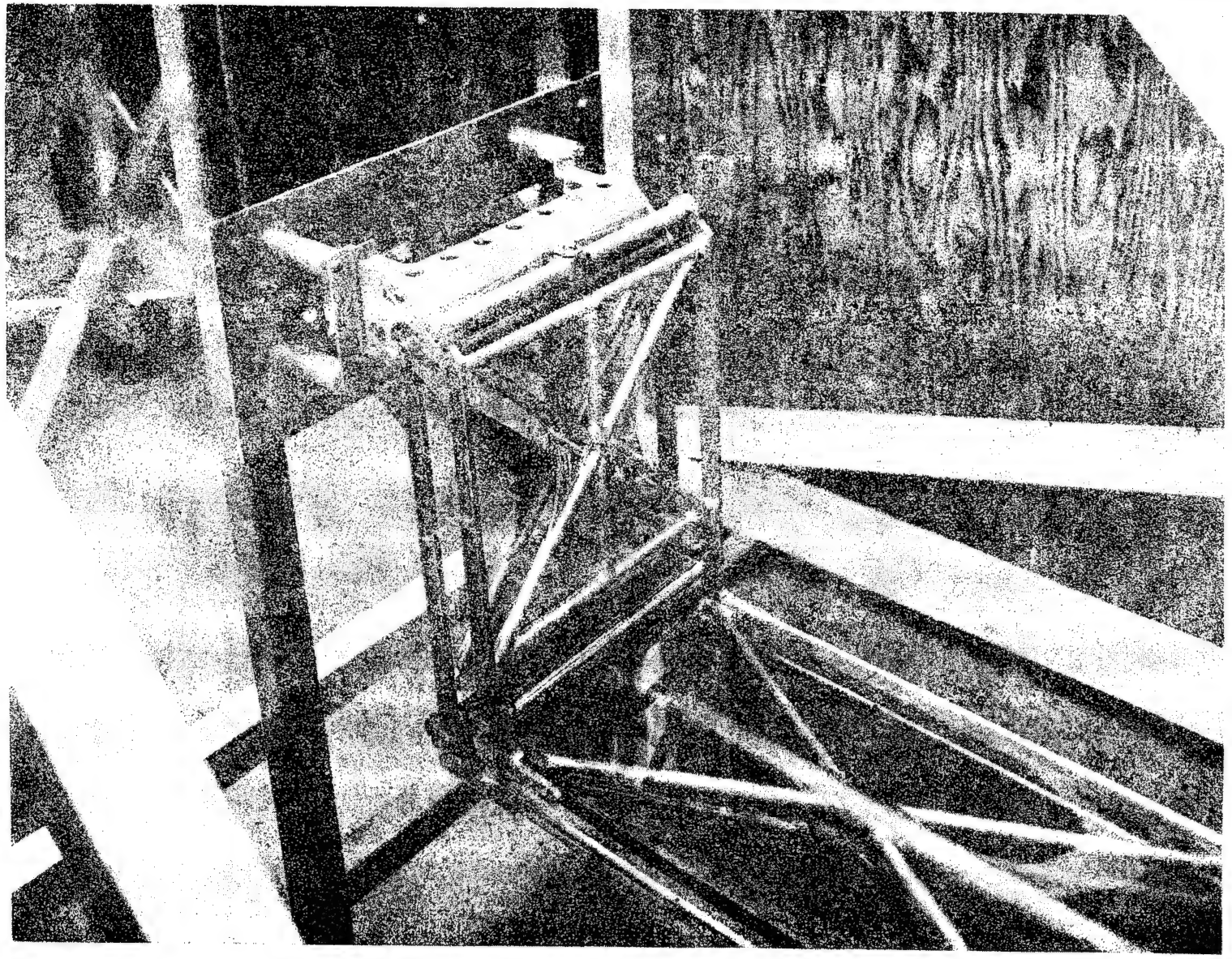

Figure 4.5-13. Roller Pivots and Guide Slots

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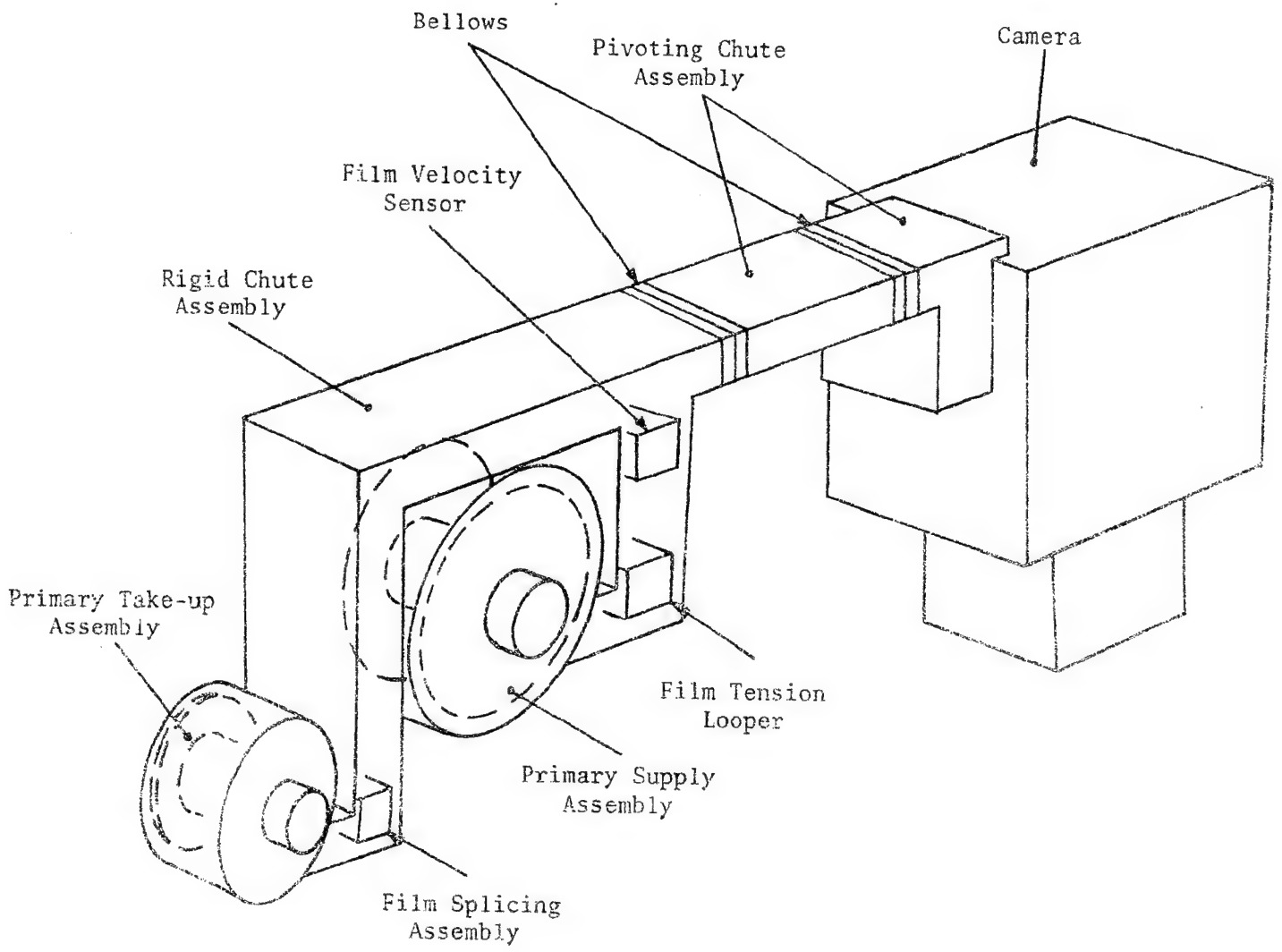

Figure 4.5-14. LM Chute Assembly Concept

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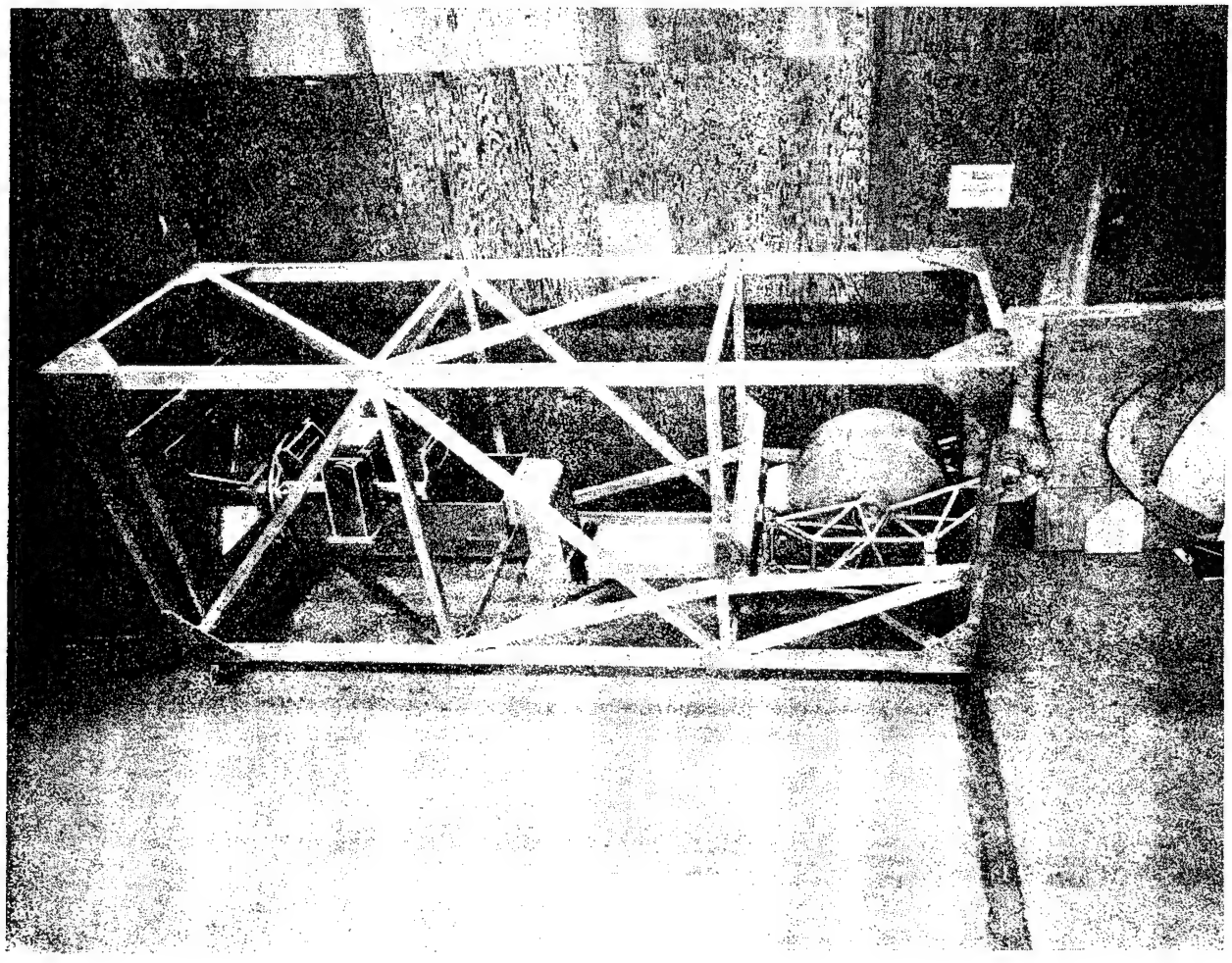

Figure 4.5-15. Film Transport System Engineering Model

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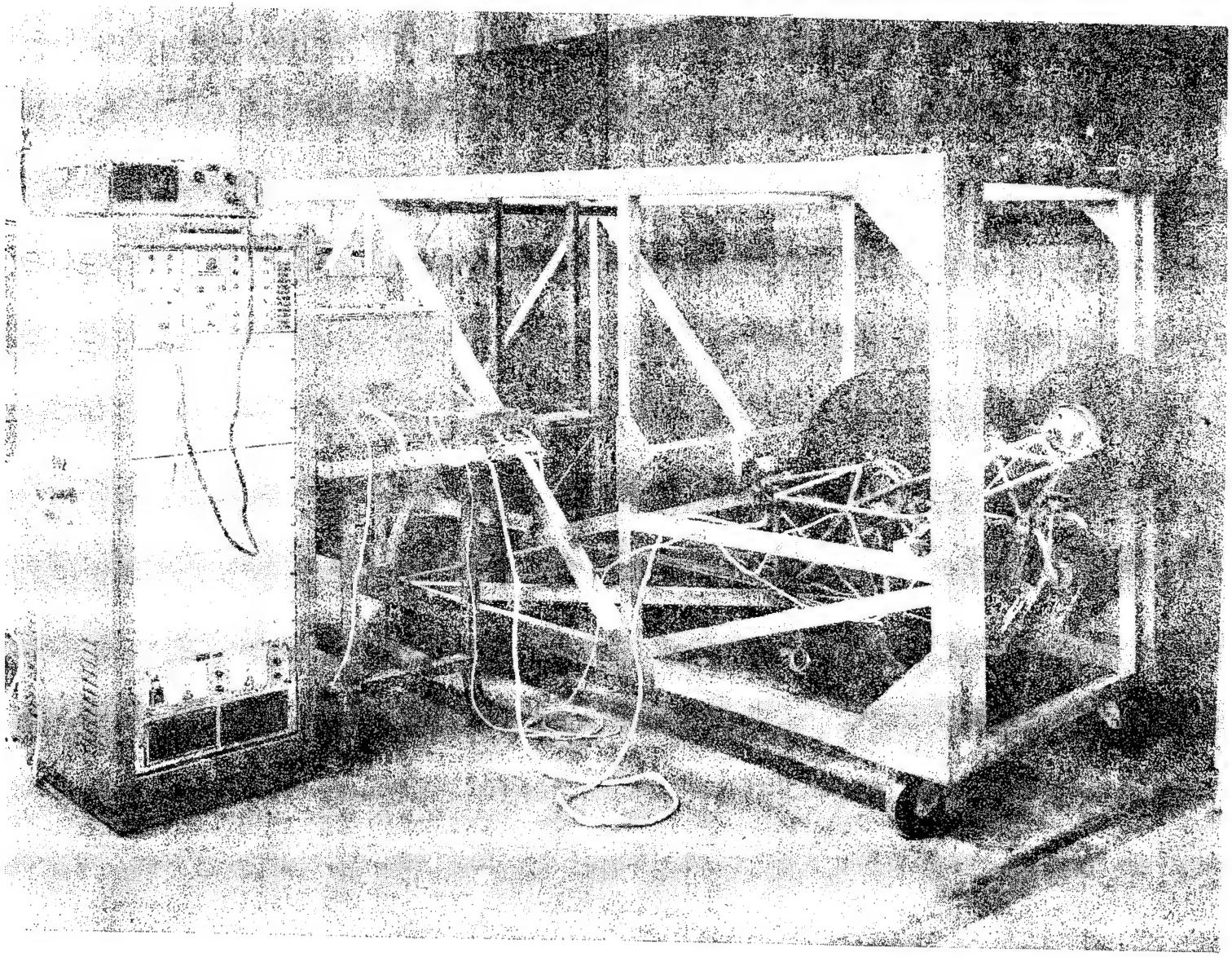

Figure 4.5-16. Film Transport System Test Setup

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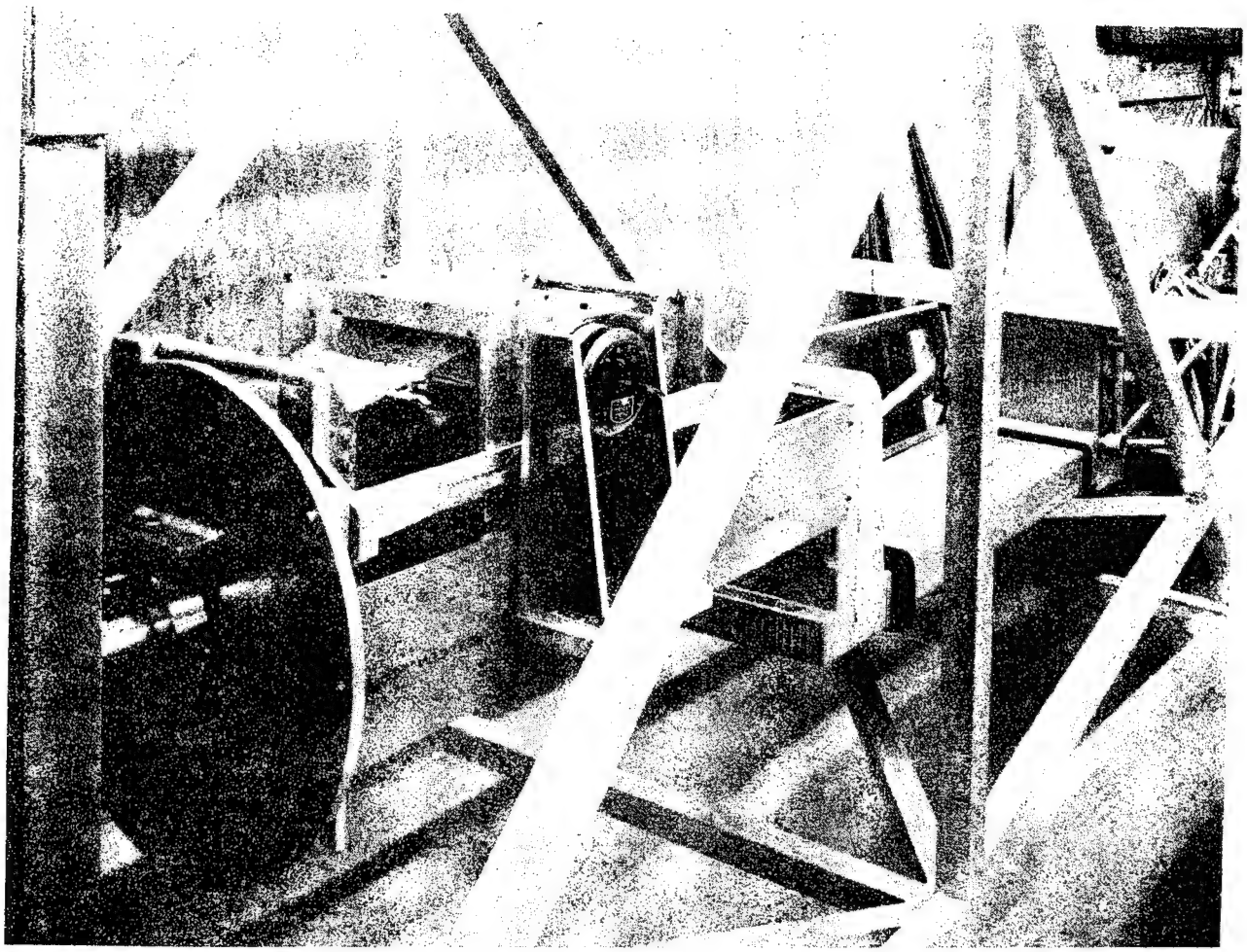

Figure 4.5-17. Simulated Camera

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BIF-008- F-035080-RH -68
(Control Number)

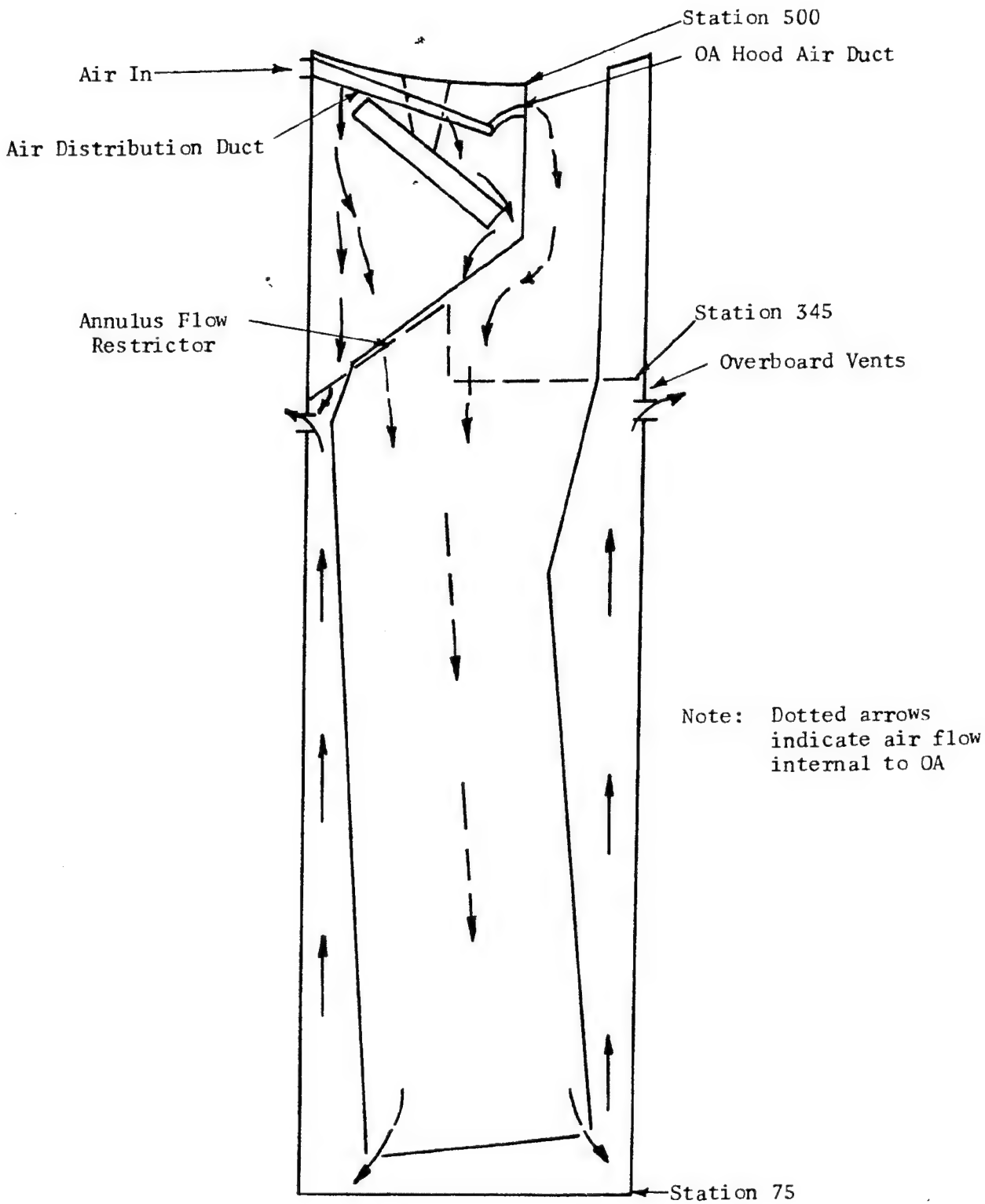

Figure 4.6-1. Ground Conditioning System

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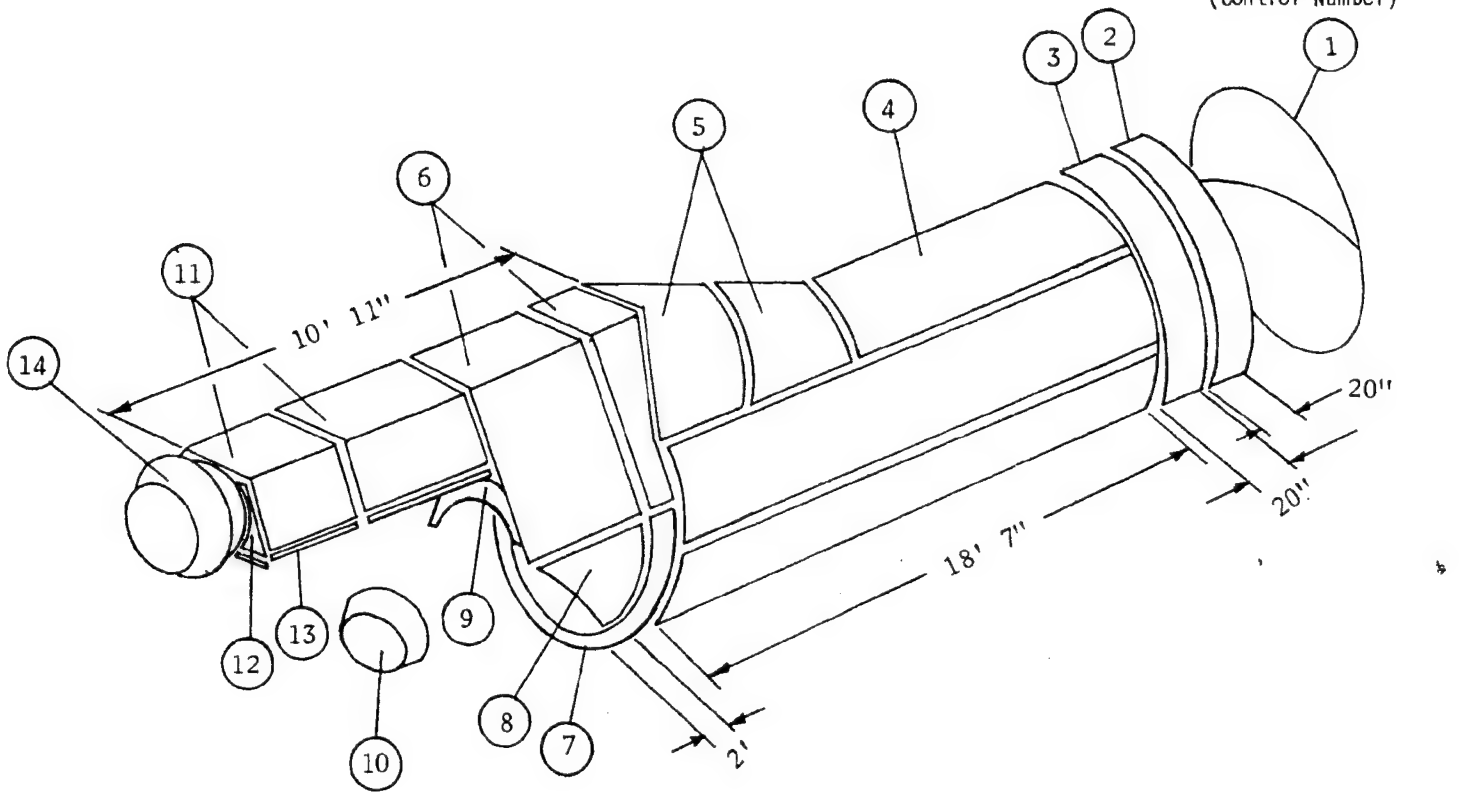

Major Blanket Assemblies

COA Bay Bkts (1) (2) (3) (4) (5)
Ross Corrector Bkts (6) (11) (12) (13) (14)
Mirror Support Bkts (7) (8) (9) (10)

1. End Cap Bkt*
2. Primary Mirror Barrel Bkts
3. Primary Mirror Transition Bkt
4. Barrel Bkts
5. Hood Bkts
6. Ross Corrector Transition Bkts
7. COA Transition Bkt to Mirror Support
8. Mirror Support Barrel Bkts
9. Mirror Support Cap Bkt
10. Newtonian Mirror Bkts
11. Corrector Bkts
12. Corrector End-Cap Bkts
13. Corrector Underpanel Bkt
14. Corrector Bellows Bkt

* Bkt = Blanket

Figure 4.6-7. Blanket Assembly Configuration

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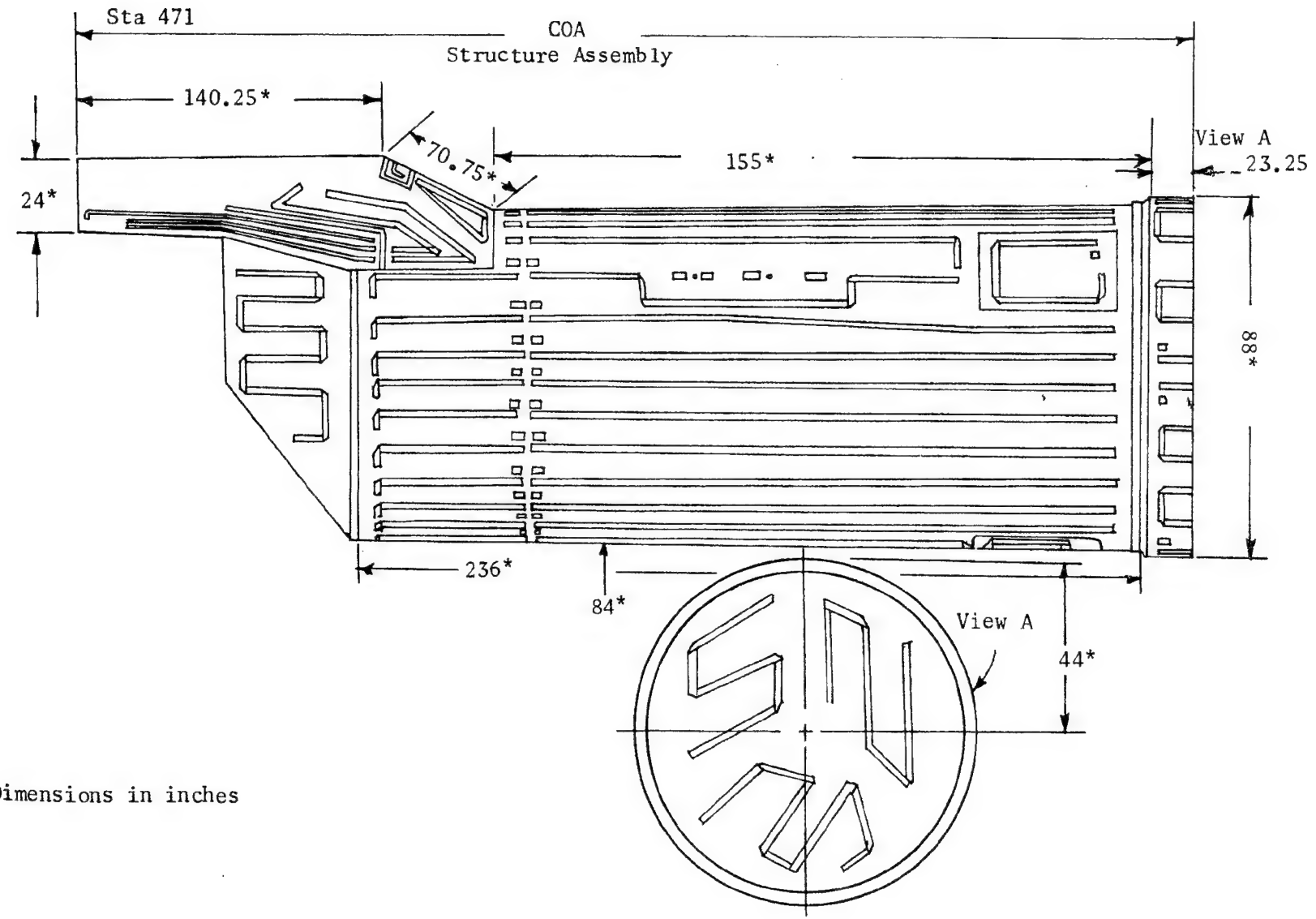

* Dimensions in inches

Figure 4.6-8. Heater Strips in Close Contact with the OA

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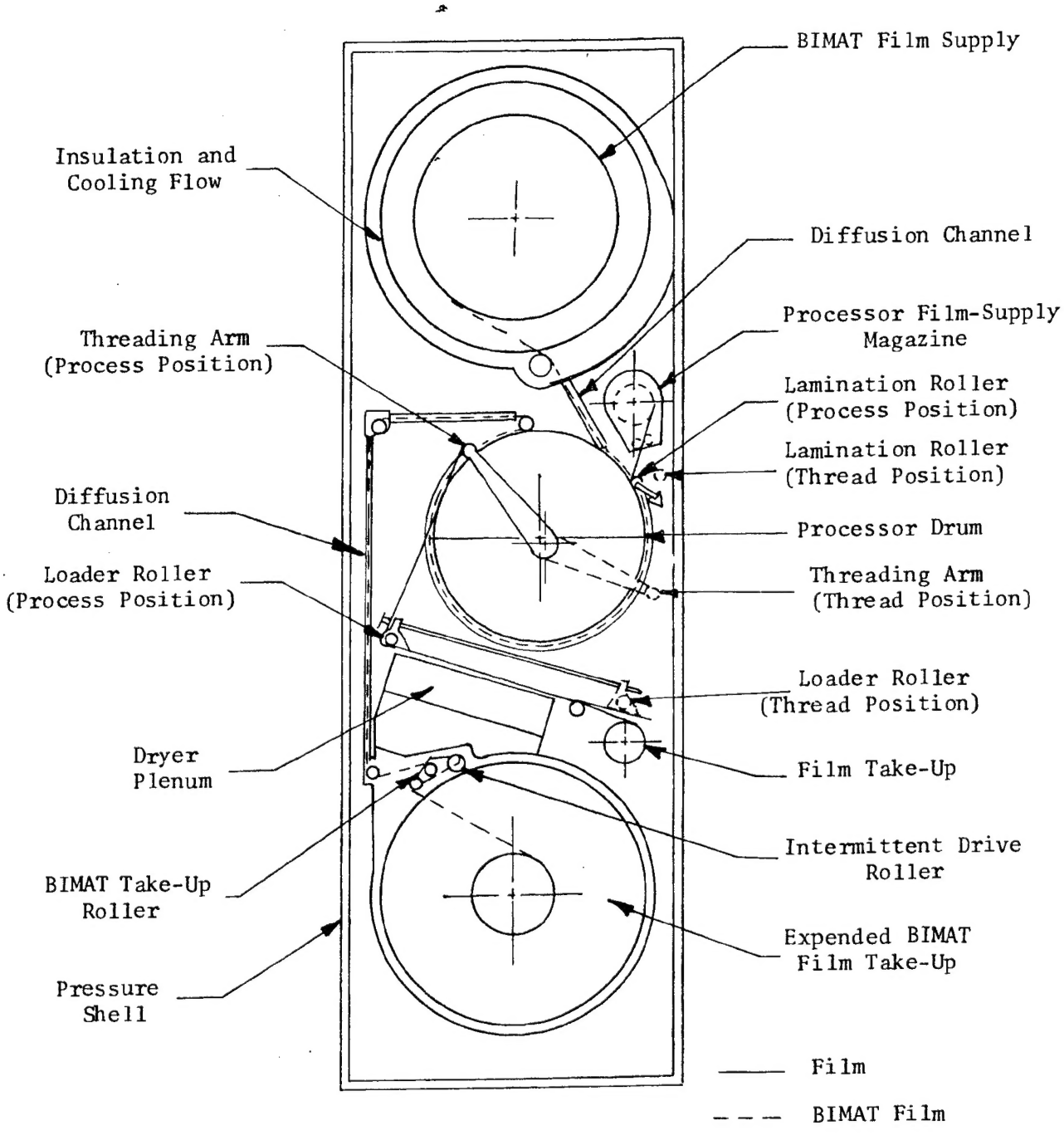

Figure 4.7-1. Side View Schematic of On-Board Processor

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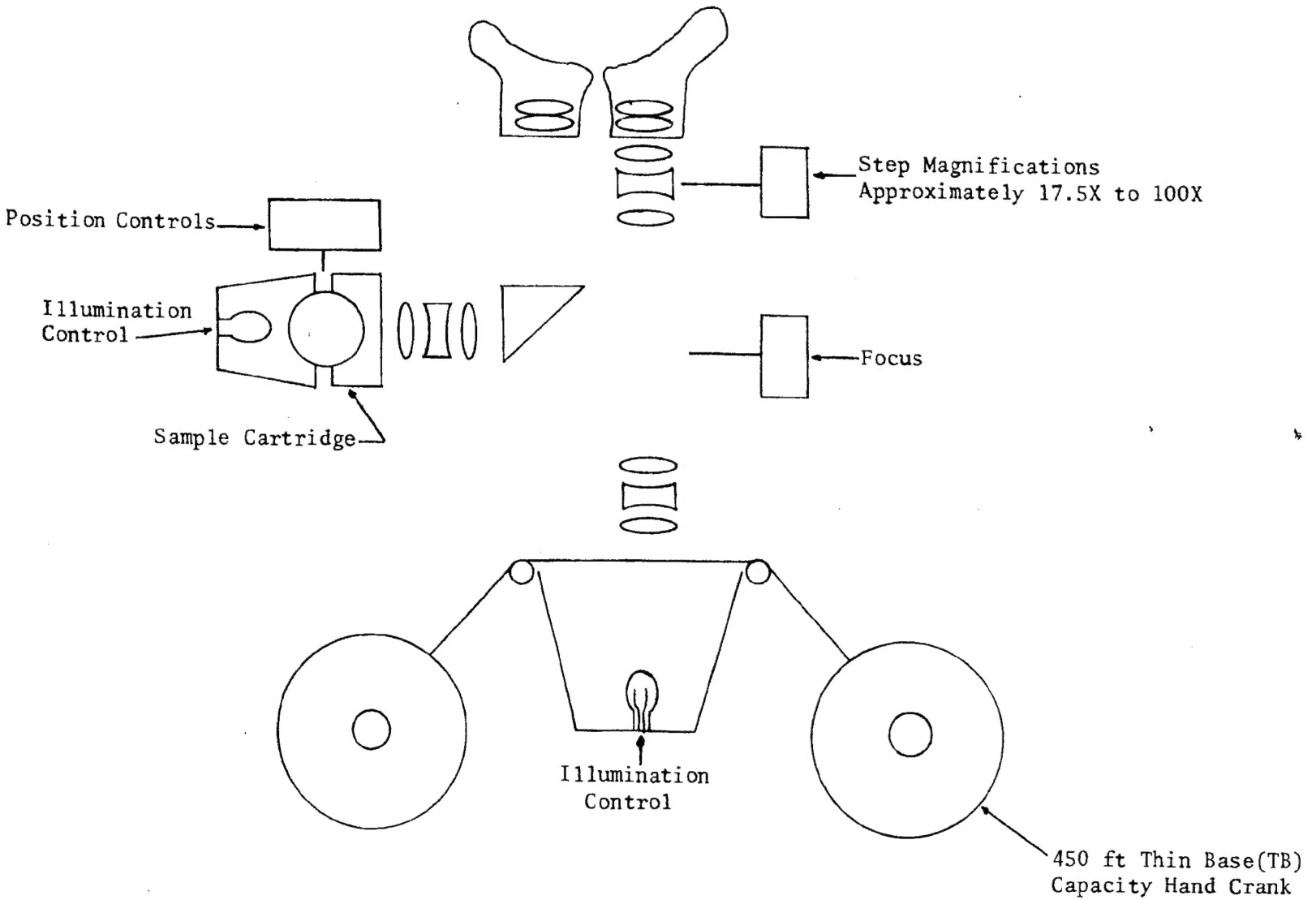

Figure 4.8-1. Concept - Viewer Schematic

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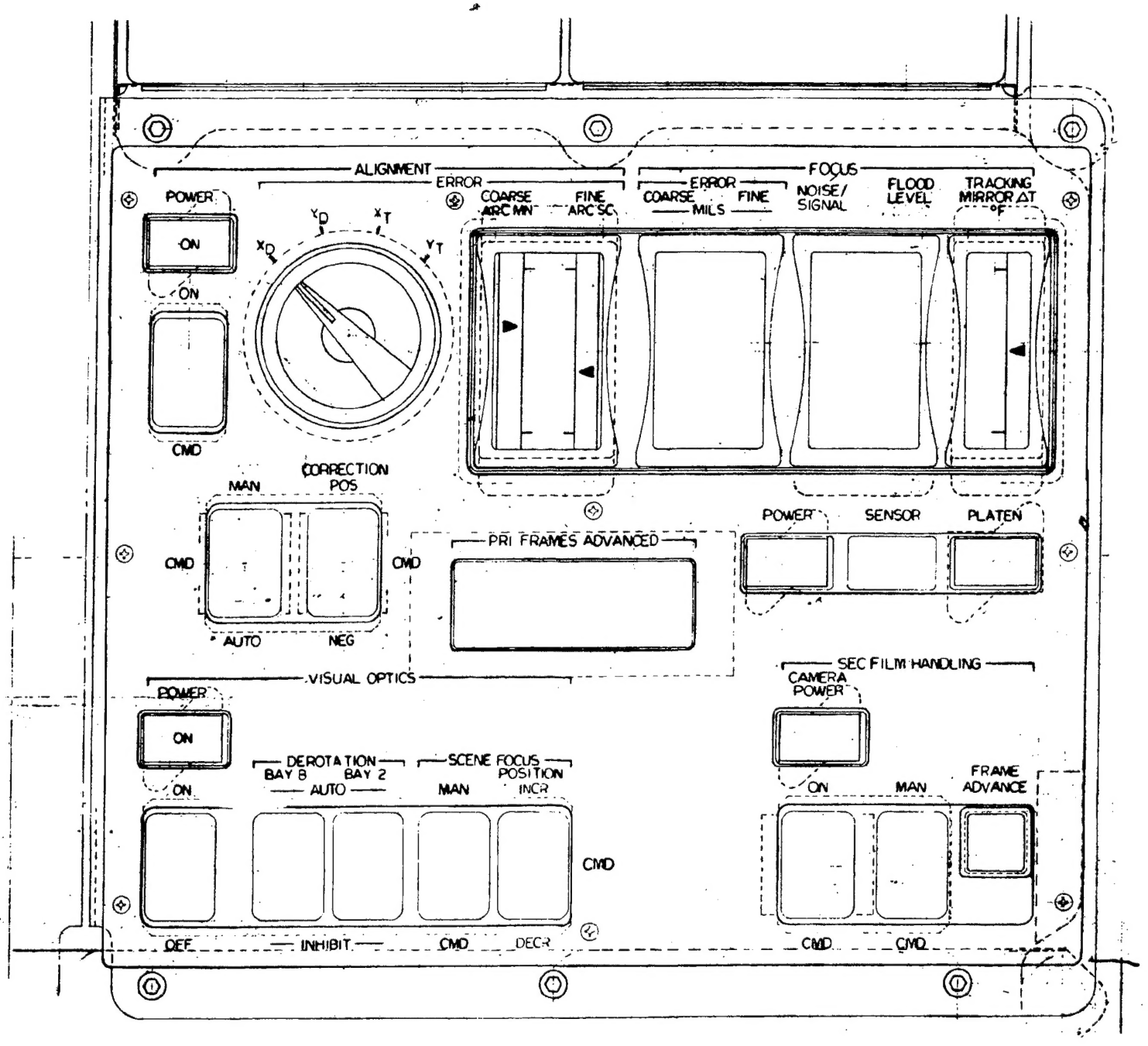

Figure 4.9-3. Panel 1-C

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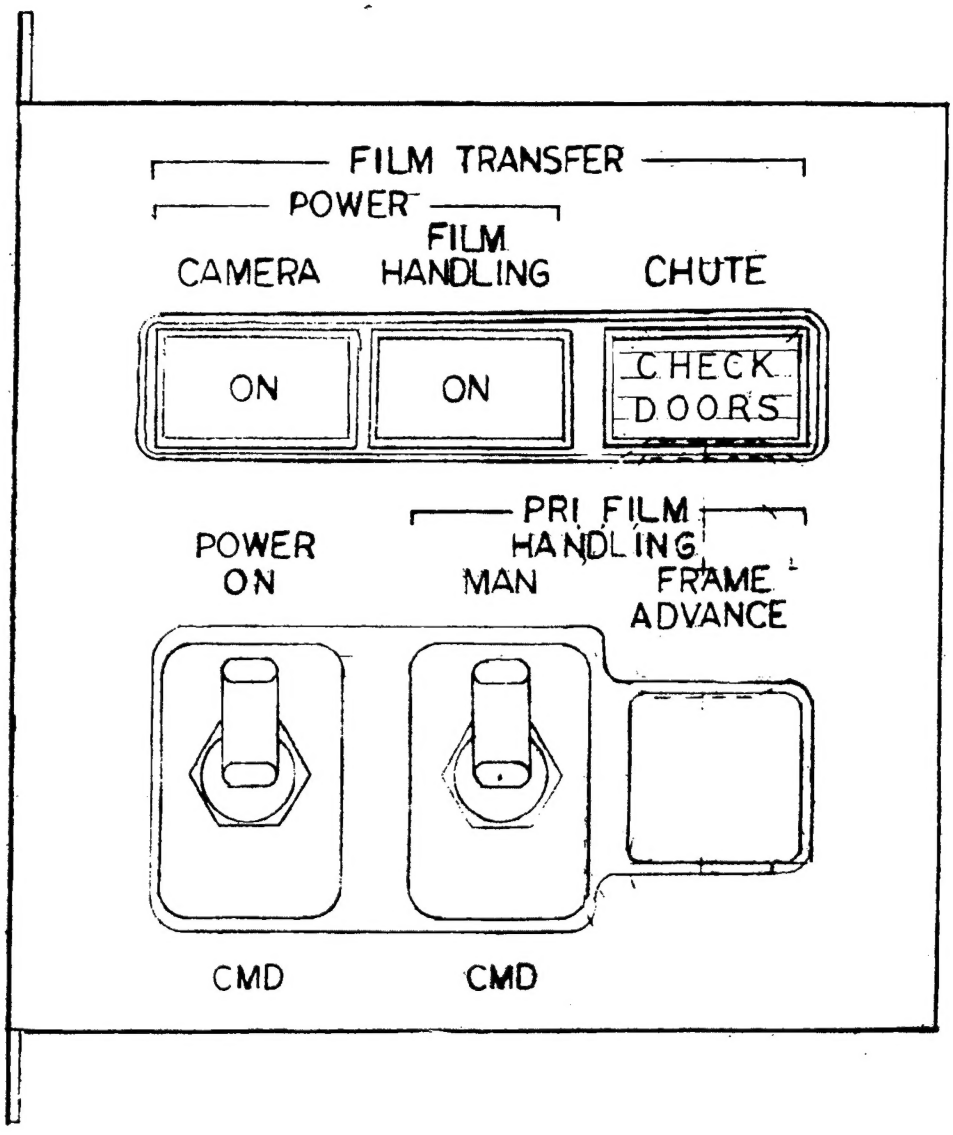

Figure 4.9-4. Film Transfer Panel

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